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May 11, 2007 Volume 29 Number 19 www.processor.com



# **VoIP Vaults Ahead**

## **How This Hot Telecom Technology Is Riding New Trends To The Top**

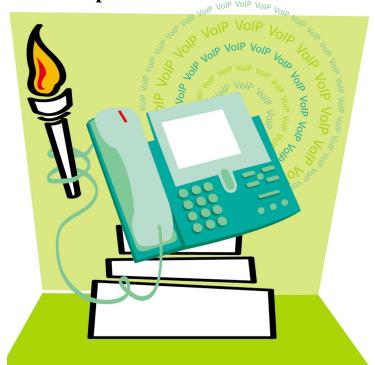
by Christian Perry

HEADING INTO 2007, VoIP appeared poised for a breakout year in which it finally transformed from an early adopter's dream to a trusted enterprise technology. In fact, Info-Tech Research named VoIP one of its hot technologies to watch in 2007 and predicted that by 2008, the technology will move from the "emerging" to the "established" application category.

"Carriers have done a good job of reducing their operating and transport costs with IP, which is great, but as the voice market has become more competitive, the focus has shifted to revenue generation and customer retention," says Jon Arnold, principal of J. Arnold & Associates, which spe-

cializes in IP communications research and analysis.

Ironically, Arnold says, the market has actually grown more competitive because of IP, with operators that were previously absent from the voice business now making serious inroads into it. Many manufacturers and providers now see distinct opportunity in the space, and that interest is continuing to drive new trends.



#### **Changing Tide**

Although the lure of significant savings on wiring infrastructure, long-distance service, and telecom operations appeared to initially drive the penetration of VoIP into the communications market, enterprises are discovering that money isn't an overriding factor for switching from their established voice technologies.

"It turns out that VoIP solutions from traditional PBX vendors cost the same or more

than legacy PBX equipment," says Martin Steinmann, senior vice president of marketing for Pingtel (www.pingtel.com). "If combined with the fact that most companies still use traditional PSTN [public switched telephone network] services for external communications, then, indeed, the cost savings are gone."

However, Steinmann notes that VoIP can still deliver on the originally promised notion of cost savings by becoming interoperable, in turn granting customers a choice of end systems, such as phones and gateways. Further, he says that VoIP systems need to meld with applications that can run on com-

modity server hardware and that by breaking up vertically integrated solutions, costs will drop, competition will increase, and innovation will accelerate.

#### **All Together Now**

As VoIP edges deeper into the enterprise mainstream, the push to make the technology an integral part of unified communications is Go to Page 9

# PCI Express Replaces PCI

## Manufacturers Roll Out Products To Bridge The Gap

by Sixto Ortiz Jr.

TODAY'S TECHNOLOGY TRAIN never stops rolling. But new technologies can present a problem when their adoption by manufacturers suddenly makes business investment in older technologies obsolete. An example is server manufacturers adopting PCI Express, eliminating PCI slots in their servers and replacing them with PCI Express slots.

IT personnel who dread losing their investments in specialized PCI cards need not fear this trend, thanks to products

designed for PCI Express slots that also allow for the use of specialized PCI cards.

#### The PCI Express Challenge

As a technology, PCI Express offers enough compelling advantages to cause server manufacturers to start integrating it into their products. But this presents special challenges to businesses with substantial amounts of capital invested in PCI cards.

"It is an absolute certainty," says Timothy Resker, vice president of business development for Carlo Gavazzi Computing Solutions, "that PC OEMs are transitioning

IT personnel who dread losing investments in specialized PCI cards need not fear this trend.

their server product lines from PCI and PCI-X to PCI Express."

This, adds Resker, is being driven by high throughput and high sales volume devices such as video, storage, and network adapters that have moved to PCI Express to take advantage of its high-speed, switched-fabric architecture.

Vicky Baker, product marketing manager for Magma, a manufacturer of PCI expansion products, says companies facing this dilemma have two options: replacing all PCI cards with PCI Express cards or using a PCI expansion system to allow for the use of legacy PCI cards while upgrading servers to new technology.

The first option, adds Baker, can be extremely expensive, especially if the business uses lots of specialty cards not available in the PCI Express form factor. In some cases, porting those cards to the PCI Express form factor may not even be possible. Also, she adds, some PCI cards are too

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Gartner's Vice President in Gartner Research Brian Gammage says that while operating system-agnostic applications are on the rise, it's not time to declare that desktop operating systems and OS-specific applications no longer matter.

#### **Product Releases** | 17

**■ Check Point Software Technologies** announced IPS-1 dedicated IPS software. ■ **Cyber Switching** announced its new Galaxy Series three-phase distribution units. ■ GFI **Software** announced the release of EndPoint-Scan, a free online service that lets users check what devices are or have been connected to computers on a network and by whom. announced HP Service Desk, an outsourced, single point of contact, end-user help desk that ales from fully standard, shared delivery solutions to custom solutions for medium-sized to large enterprises.  $\blacksquare$  Leviton Voice & Data bolstered its Fiber Raceway line so businesses can better customize their own Fiber Raceway Systems. ■ **Onaro** unveiled an updated version of its SANscreen Application Insight, a storage resource management application designed for medium-sized to large organizations.

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■ **Plasmon** launched the newest version of its

UDO (Ultra Density Optical) archival storage

platform. ■ TalkSwitch announced the

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**BUSINESS PRODUCTIVITY** 

May 11, 2007

## **Solving Business Service Chaos In Your SME**

**BMC SRM Automates The Delivery Of Services To Users** 

THE PROVISION OF SERVICES within a business environment can be chaotic. For example, hiring a new employee means obtaining services from facilities, IT, security, training, and human resources, each with its own methods for requesting and tracking things. The result is unnecessary delays and a higher cost of doing business.

BMC Software offers assistance in this area via an addition to its BSM, or Business Service Management, solution. Known as BMC SRM (Service Request Management), it is designed to eliminate request and fulfillment inefficiencies. One online catalog contains all services, regardless of the department providing them. Similarly, the underlying processes are tied to the catalog in order to provide a higher level of automation.

Service desk and support staff, therefore, can harness this software for such tasks as back-office fulfillment, integrated self service, and incident prioritizing. But it isn't only support staff who benefit. Users can view SRM's central interface when they are searching for the appropriate service. They can also submit service requests and use the system to track the progress of their order.

"Self-service is a major trend that is picking up momentum in the market space as service desks are forced to handle more work with fewer resources," according to Gerry Roy, group manager for service management at BMC. "By

pushing more capabilities to the end user for logging issues, requesting services, and status checks without requiring staff to return calls for simple things, it provides the service desk personnel time to focus on incidents that are affecting services rather than issues that aren't as critical."

BMC Service Request Management can either be used in conjunction with the company's Business Service Management platform to provide a wider range of services or as an independent solution. The latter option would be suitable for non-BSM firms that don't wish to embark upon a BSM deployment but do want to address communication from the service product to the customer in an easy-to-use, self-service interface.

## BMC Software Service Request Management

Starts at \$50,000

Enables IT organizations to deliver greater selfhelp options to end users by letting them view a catalog of services, request those services, and track their status

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**NETWORK & SYSTEMS MGMT.** 

## **Citrix Offers Desktop Delivery & Management**

**Virtualized Windows Desktops Delivered Securely** From The Data Center



Citrix's Desktop Server 1.0 lets firms deliver and manage desktops.

**INDUSTRY ANALYSTS ESTIMATE** the familiar PC desktop costs as much as \$5,000 per user per year to deploy and maintain. In addition, its limited life cycle creates high, recurring costs. So it's no surprise organizations are looking for better ways to deliver desktops to end users, especially with the migration requirements imposed by Vista.

One new entry in the desktop virtualization arena is Citrix Desktop Server 1.0. It begins in the data center with servers that support software, providing overall administrative functions such as desktop allocation, user mapping, and pooled desktop management. The desktop interface is delivered to the end user by passing presentation-layer data using the Citrix ICA display protocol. The virtual desktop may appear on a traditional PC or a thin client device. Desktop Server can select the desktop most suited to user needs by delivering, for example, a blade PC or a Windows Terminal Server desktop in place of the desktop. Individual applications can then be delivered to the desktop via virtualization or streaming using software such as the Citrix Presentation Server and protected by ultra-secure solutions such as Citrix Secure Gateway.

May 11, 2007

This type of desktop virtualization enables more efficient

delivery and management and provides instant provisioning and increased security of data. Patches, upgrades, and new applications can be applied centrally at a considerably lower cost than traditional methods.

Starts at \$75 per user

Improves performance and reliability for employees while helping IT administrators deliver and manage employee desktop software more easily, securely, and economically

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www.Processor.com/DesktopServer



**STORAGE** May 11, 2007

## **Disk Drive Backup At Tape Drive Prices**

Idealstor's Teralyte Provides Up To 1.5TB Storage

**IDEALSTOR HAS ADDED** a new alternative for backup disk drive platforms with a product that lets businesses use existing servers to create high-density backup at a

price tag expected to attract small to midsized enterprises.

The Teralyte uses removable hard drives in place of tape drives for offsite backup requirements. Unlike Idealstor's

existing backup products, the Teralyte is not integrated as an appliance with a Windows server but instead attaches to an existing server using a SATA connection.

"People are increasingly backing up to disk because they've not been happy with tape," says Ben Ginster, channel marketing manager for Idealstor. "There are a lot of small to medium businesses, however, that don't need to purchase a new server to dedicate to this platform. Most companies have a backup or under-utilized server to which they can attach the Teralyte. In essence it's just like attaching a tape drive."

For four years Idealstor has sold platforms that combine SATA disks with a Windows-based server to create a removable hard disk-based backup system that many IT executives prefer over tape drive backup systems. The flexibility and reliability of a hard disk-based system, however, has been too highly priced for many SMEs, Ginster says. The serverless

equivalent to tape-based systems because it allows users to take advantage of existing servers.

"Disk drives have always been bigger,

faster, and more reliable, so there is no reason why a small or medium business can't use this in place of tape," says Ginster.

The Teralyte 1000 comes with one drive and the Teralyte 2000 with

two drives. The drives can accommodate any capacity or manufacturer of SATA disk. The largest SATA disk available is 750MB, but 1TB drives are expected to be introduced soon. The Teralyte 2000 provides a total of 1.5TB storage with two 750MB disks.

The Teralyte systems come with a ruggedized removable disk caddy and protective storage box, and additional caddies are available for businesses seeking to create a rotation of disks

Teralyte 1000: \$1,995; Teralyte 2000: \$2,995

Lets SMEs use existing servers to get reasonably priced hard disk-based backup

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www.Processor.com/Idealstor



Teralyte can be provided at a price nearly

## MarketPlace -





SMB Push, Layoffs

AT IBM'S PARTNERWORLD conference, IBM Chairman and CEO Sam Palmisano said the company would make a big push into the small to midsized business market during the next several years. As part of the move, IBM expanded its Express Advantage program, a package of hardware, software, services, and support, to midsized businesses. The company also announced plans to create blade servers specifically designed for small to midsized businesses. In other IBM news, the company laid off 1,315 workers and an unspecified number of contractors in its global services division.

#### Dell Memo Hints **At Upcoming Changes**

THE 78,000 EMPLOYEES at Dell received a memo from CEO Michael Dell suggesting that changes may be ahead for the company, including a revamping of Dell's direct sales model. Dell has recently fallen from its No. 1 spot as the leader in PC sales and has also been trying to resolve an accounting scandal that the SEC is investigating. The memo suggested that Dell needs to trim costs, which could include job cuts, and maximize areas where the company can grow, which may involve new company and/or technology acquisitions. The memo also mentioned long-range plans of developing new products targeted at expanding global markets and locations.

#### Microsoft Acquires ScreenTonic

AS PART OF THE COMPANY'S long-term goal of branching out to deliver advertisements to consumers, Microsoft has announced plans to buy ScreenTonic, a Paris-based mobile phone advertising firm. Although the companies did not disclose financial details of the deal or when it would occur, Microsoft plans to integrate ScreenTonic into its Digital Advertising Solutions group, which specializes in offering a range of ad options across different Microsoft product platforms, such as its Web sites or Xbox system. ScreenTonic's founders will stay with the company after the merger, and Microsoft plans to let them continue what they do; it doesn't plan to rebrand ScreenTonic.

#### Symantec Reports Increased Revenue In Fiscal Q4

SYMANTEC SAW STRONG GROWTH in revenue in its fiscal fourth quarter, which ended March 30. For the same quarter a year ago, the security giant had revenue of \$1.24 billion, while its revenue for this quarter was \$1.35 billion. Profit was down, largely due to Symantec taking a \$51 million hit when it implemented restructuring and cut jobs; last year's profit for fiscal Q4 was \$118.8 million, or 11 cents a share, and this year's was \$61 million, or 7 cents a share. But not counting the \$51 million charge, earnings per share beat analysts' expectations by 4 cents per share, totaling 24 cents a share.

#### Mitel To Acquire Inter-Tel

VoIP VENDOR MITEL NETWORKS plans to acquire Inter-Tel for about \$723 million, or about \$25.60 for each share of Inter-Tel stock. The merged company will combine Mitel's extensive global reach in the IP communications market and Inter-Tel's strong U.S. presence. Both companies have extensive product portfolios in unified communications, networking, management, and other VoIP applications. The merger is expected to close during the third quarter; the combined company should have revenues of about \$800 million, twice that of Mitel's current revenues.

#### Sprint Nextel Posts Loss

FOR THE THIRD QUARTER IN A ROW, wireless carrier Sprint Nextel reported a loss of postpaid subscribers. Most of the 220,000 monthly customers lost in Q1 were subscribers who switched to other competing carriers. In the first quarter, Sprint Nextel lost \$211 million, or 7 cents a share. In comparison, a year ago the company had a profit of \$417 million, or 14 cents a share. According to the company, the losses are linked to company spending to solve technical problems and make improvements in customer service.

#### 9,000 Jobs To Be Cut At Nokia Siemens

BY THE END OF 2010, telecom equipment maker Nokia Siemens will cut 15% of its global workforce. About half of the 9,000 jobs that will be cut are located in Germany and Finland. The company is making the move to help boost its competitiveness and hopes to save \$2 billion a year through the job cuts. After the cuts were announced at the company's headquarters near Helsinki, Finland, hundreds of workers walked out. In Germany, IG Metall, a German trade union, requested additional information but has not ruled out the possibility of protests.

#### Intel Cutting Jobs

BEGINNING IN AUGUST, Intel will end production of flash memory chips at a plant in New Mexico, leading to as many as 1,000 layoffs. When the announcement was made at the outdated fabrication plant in February, Intel extended an invitation to the workers to either look for another job within Intel or to take a severance package that includes job search training. That same month Intel announced that the building next door to the fabrication plant will receive \$1 billion in upgrades in order to enable the factory to produce Intel's new next-generation 45nm processors.

#### U.S. Has Cyber Security Problems

WHILE CYBER SECURITY EXPERTS disagree as to whether someone could release an attack that would cause a widespread outage of the United States' communications networks, most seem to agree the United States has problems with its cyber security systems. In a hearing by the U.S. House of Representatives Subcommittee on Emerging Threats, Cybersecurity, and Science and Technology, cyber security experts from throughout the country urged lawmakers to train experts in cyber security, move all sensitive data to secured networks, and do a better job defending against espionage.

#### Disaster Recovery Viewed Differently

ACCORDING TO A SURVEY commissioned by SunGard Availability Services and released by Harris Interactive, the importance of disaster recovery and business continuity is viewed differently by IT managers and business executives. The survey, which gathered information from 351 IT managers and 176 corporate execs earlier this year, found that 71% of IT managers rate DR and business continuity as important or crucial, while only 49% of business executives hold the same views. The survey also reveals that 43% of IT managers blame insufficient DR systems on budget limits, while 26% of business executives think DR costs are prohibitive.

#### Spyware Bill Reintroduced In The House

THE INTERNET SPYWARE Prevention Act has been reintroduced to the U.S. House of Representatives by Reps. Zoe Lofgren and Bob Goodlatte. The act, which would mean those convicted of malicious spyware-related activities could face up to five years in prison, has been approved by a House subcommittee. Companies that support the bill include Microsoft, Dell, and Symantec. It is expected that the bill will be approved by the House Judiciary Committee, after which it would be debated by the full House. Another bill, the Spy Act, has also been introduced by another committee. This bill would make it illegal to collect personal information by "taking control" of a computer through a keystroke logger, among other things.

#### Personal Data Breach Bill **Gets Senate Committee Approval**

AN AMENDED VERSION of the Personal Data Privacy and Security Act has gained unanimous approval from the Senate Judiciary Committee. Senators Arlen Specter and Patrick Leahy, Senate committee chairmen, were the ones who chiefly sponsored the bill and included it with Senator Dianne Feinstein's proposed Notification of Risk to Personal Data Act. Sen. Feinstein's bill calls for companies that have experienced a breach of sensitive personal data to promptly notify the individuals whose information was compromised. The Specter-Leahy bill calls for fines, up to five years in jail, or both for those who "intentionally and willfully" withhold information regarding a security breach leading to "economic damage to one or more persons."

## WATCH THE

prices and trends for 16 major companies in the technology market.

Company	Cumbal	Voor Ame	April 20 ¢	Mov 7 ¢	% change from
Company	Symbol	Year Ago	April 30 \$	May 7 \$	previous week
Avaya	AV	\$12.70	\$12.92	\$13.49	<b>▲</b> 4.41%
BEA Systems	BEAS	\$12.93	\$11.79	\$11.36	▼ 3.65%
Computer Associates	CA	\$25.73	\$27.26	\$28.20	▲ 3.45%
Cisco Systems	CSCO	\$21.76	\$26.74	\$27.81	<b>4</b> %
Dell	DELL	\$26.43	\$25.21	\$25.90	<b>▲</b> 2.74%
Electronic Data Systems	EDS	\$26.30	\$29.24	\$27.78	<b>▼</b> 4.99%
Google	GOOG	\$394.78	\$471.38	\$467.27	▼ 0.87%
HP	HPQ	\$33.79	\$42.14	\$43.80	▲ 3.94%
IBM	IBM	\$82.89	\$102.21	\$103.16	▲ 0.93%
Intel	INTC	\$20.11	\$21.50	\$21.96	<b>▲</b> 2.14%
McAfee	MFE	\$26.52	\$32.49	\$33.89	<b>▲</b> 4.31%
Microsoft	MSFT	\$23.73	\$29.94	\$30.71	▲ 2.57%
Oracle	ORCL	\$14.23	\$18.80	\$19.05	<b>▲</b> 1.33%
Red Hat Software	RHT	\$32.27	\$21.14	\$22.39	▲ 5.91%
Sun Microsystems	SUNW	\$5.08	\$5.22	\$5.22	0%
Symantec	SYMC	\$17.38	\$17.60	\$19.51	▲ 10.85%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions.

## **Upcoming** IT Events

#### - MAY -

TDWI World Conference-Spring 2007

May 13-18 Boston, Mass.

www.tdwi.org/Education/Conferences/index.aspx

Government Technology Conference West 2007

May 14-18 Sacramento, Calif.

www.govtech.net/gtc/index.php/GTCWest2007

Houston ITEC 2007

May 16-17 Houston, Texas www.goitec.com

Philadelphia SecureWorld Expo

May 16-17 Philadelphia, Pa www.secureworldexpo.com . . . . .

Interop May 20-25 Las Vegas, Nev. www.interop.com/lasvegas

#### - JUNE -

Gartner CISO Bootcamp Invitational Program

June 3-5 Washington, D.C. www.gartner.com/it/page.jsp?id =502423&tab=overview

. . . . . Gartner Software & IT Asset Management Summit June 3-6

Nashville, Tenn www.gartner.com/it/page.jsp?id =498125&tab=overview

Gartner IT Security Summit

June 4-6 Washington, D.C. www.gartner.com/2\_events /conferences/sec13.jsp

Microsoft TechEd 2007 June 4-8 Orlando, Fla.

www.microsoft.com/events/teched2007 . . . . . Dallas ITEC 2007

June 6-7 Dallas, Texas

www.goitec.com

**ICCA National Conference** 

June 8-10 Chicago, III. www.icca.org/confinfo\_june2007.asp

> CSI NetSec 07 June 11-13 Scottsdale, Ariz. www.gocsi.com

. . . . . Gartner IT Infrastructure, Operations &

Management Summit June 11-13 Orlando, Fla. www.gartner.com/2\_events

/conferences/str23.jsp

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#### BUYERS' GUIDE

## **MARKET** WATCH

# Environmental Monitoring

## **Keep Tabs On The Conditions In Your Data Center**

by Paul Ferrill

KEEPING TABS on the environment in your data center is a critical task and an essential part of a good operations plan. Automated monitoring devices make it possible to provide 24/7 coverage of everything from temperature and humidity to flooding. Choosing the right device for your situation often depends on the overall system management tools in place.

Notification options will be important if you don't already have some type of management system. Most vendors support email and pagers, while a few add SMS (Short Message Service) to the list. One vendor makes it possible to connect directly to a GSM modem as a backup to normal communication lines.

For remote situations, it's often good to know if anyone has tampered with your equipment. This can be accomplished with a single contact switch to indicate a cabinet door opening or closing. You'll need to identify the vendors that include dry contacts with their units if you need support for this type of monitoring.

#### Management

Many larger companies utilize some type of network management software to monitor and control their network devices. Most network hardware vendors offer products that support SNMP (Simple Network Management Protocol) for monitoring and controlling their equipment.

Almost all of the environmental monitoring devices on the market today provide some type of SNMP support to integrate with high-end network management tools such as CA Unicenter (www.Processor.com/CA) or HP OpenView (www.Processor.com/HP2). Each vendor provides a custom management information base, or MIB, defining the objects available for alerting and monitoring.

This information is then used to configure such things as multiple alert levels and severity to aid the management staff in tracking their environment. Adjusting the levels does take some amount of tweaking to eliminate nuisance alarms. Most management tools also make it possible to track historical information to detect trends and help with the alert level adjustment.

## **Buying Tips**

Questions to ask when choosing an environmental monitoring device:

- What type of monitoring is necessary?
- What methods of notification will be needed?
- Will integrated security also be required?
- Will remote power control of the equipment be needed?

#### **Monitoring & Control**

Although monitoring your data center's environmental conditions is critical, it won't protect your equipment from damage unless you can also control the equipment. If a temperature sensor generates an alert that indicates some type of cooling system failure, you will have to shut the equipment down at some point to prevent permanent damage.

Remote power management is standard with many of the newer server systems and cabinets. For older equipment, you'll have to install some type of remote power switching system to completely shut things down. Another alternative would be to remotely shut the operating system down, but this wouldn't completely remove power from the equipment.

#### **BayTech**

BayTech's RES (remote environmental sensor) products provide standalone monitoring of temperature, humidity, airflow, and water. All RES products are both Weband SNMP-enabled for flexible monitoring

#### **SNAPSHOT**

#### BayTech RES Series

Cost-effective sensors and power conditioning equipment that provides a complete solution for your remote monitoring and control needs

www.Processor.com/BayTech13

options. The internal Web server presents an administrator with a simple interface displaying all devices and their current status.

The RES2 product supports two sensor ports and a network connection. RES2 PLUS I adds an integrated sensor into the box for self-contained monitoring. Other models add more sensor ports or serial ports to the basic sensor hub capability. BayTech offers a complete line of sensors to complement their sensor hubs, including airflow, temperature, humidity, security, and voltage.

BayTech also sells a number of other products focused on remotely controlling and monitoring a data center. Its RPC (remote power control) products include individually controlled power receptacles, network connectivity, and full management software.

#### **Geist Manufacturing**

The RacSense line of products from Geist Manufacturing covers all aspects and all sizes of environmental monitoring from a single cabinet to an entire data center. The RSM (RacSense Master) provides both power distribution and environmental monitoring in a single unit. RSM units are designed to mount inside a typical computer cabinet and contain internal sensors for current, voltage, temperature, humidity, airflow, light level, and sound level. It also has connectors for up to 16 external sensors.

#### **SNAPSHOT**

#### **Geist Manufacturing RacSense**

Line of environmental monitoring and control products that expands from a single cabinet to an entire data center, delivering a complete set of conditions to keep your equipment up and running

www.racsense.com

A satellite product, the RSS (RacSense Satellite), allows for expansion to additional cabinets while maintaining interconnection. The RSE (RacSense Environmental) product is for environmental monitoring only and adds three dry contact connectors to monitor external switch closures. It will also connect with an RSS unit for expansion purposes.

Full SNMP support is provided for all units, along with an internal Web server for direct display. Administration and control of the units can be accomplished either through the Web interface or using Telnet. A separate control software product is also available for simultaneous monitoring of multiple units. For time accuracy, the units connect to standard NTP (Network Time Protocol) servers and synchronize their internal clocks.

#### **Network Technologies**

The ENVIROMUX-SEMS-16 from Network Technologies provides a wide variety of monitoring and alerting capabilities

designed to provide an early warning of a possible critical event before it turns into a disaster. An internal battery provides up to one hour of backup without the need for an external source.

The rack-mountable product includes 16 RJ-45 sensor ports for connecting remote sensors. In addition, the unit provides 16 digital inputs, eight output relays, RJ-45 in and out ports for daisy-chaining multiple units, beacon and siren output terminals, RS-232 console and external ports for control and connecting to a transmitter such as a GSM modem, auxiliary power to connect an external battery, and a standard RJ-45 connector to connect to a network.

Security is another coverage area for the ENVIROMUX-SEMS-16, with support for common security sensors and the ability to transmit remote camera video over an IP network. Up to eight cameras can be associated with each ENVIROMUX, while the administrator software can display all eight



#### SNAPSHOT

Network Technologies ENVIROMUX-SEMS-16

\$1,250

Provides a comprehensive monitoring and alerting capability with its own battery backup

www.networktechinc.com

views at once. Up to four units can be connected together to increase the total number of sensors if needed.

#### **Server Technology**

Combining power conditioning with environment monitoring is the focus of the Sentry Switched CDU (cabinet power distribution unit). These products make it possible to manage and monitor both power and environment inside the typical server cabinet. Each switched CDU supports two temperature and humidity probes and constantly monitors the input current to prevent power overloads.

All environmental and power monitoring conditions are available as SNMP traps and alerts. The unit also provides a Web interface for direct monitoring and supports

#### SNAPSHOT

#### Server Technology Sentry CDU

CW-24V Sentry Switched CDU: \$949

Individual probes: \$59.95

Integrated power switching unit with built-in environmental monitoring support; provides everything you need in a single unit to both monitor and control a single computer rack

www.Processor.com/ServerTechnology10

SSH, Telnet, and direct RS-232 connections. Server Technology sells a high-end Enterprise View product for managing and controlling a large number of devices.

#### **Uptime Devices**

The SensorHub line of environmental monitoring products offers a cost-effective solution to the problem of remotely monitoring a small number of sensors. The products are easy to install utilizing plug-and-play

#### SNAPSHOT

#### Uptime Devices

-----

SH-2: \$295

SH-2+: \$395

SH-2+I: \$445

SHPro: \$895

Offer a cost-effective solution for your basic environmental monitoring needs

www.Processor.com/SH2I

sensors and network connectivity. Any of the SensorHub products can be installed and operating in just a few minutes.

At the low end are the SH-2, SH-2+, and SH-2+I models with two sensor ports providing temperature and humidity information. The units support four defined threshold levels for multilevel alerting. Each unit is small enough to set inside a server cabinet without the need for rack mounting.

The SHPro model is a 1U rack-mounted device with support for four sensor ports and two serial connections. It also has 10 dry contact terminals to monitor doors and other relay-based switches. Both this unit and the lower-end models support the four defined threshold levels.

To see *Processor* Showcase advertisements for products in this category, look online at www.Processor.com and find the Environmental Monitoring ads under Physical.

## **Second-Generation SAS/SATA** RAID Adapters

LSI MegaRAID® Products Feature SAS1078 & RAID 6

THE MOST SIGNIFICANT PERFORMANCE bottleneck that hinders server performance is not CPU clock speed or the amount of RAM—it is the I/O subsystem. IT needs to know their servers are running disk controllers with the best performance characteristics for their usage patterns, and finding high-caliber hardware for data redundancy and high-speed I/O can be a challenge. LSI has met this challenge with three new products based on its LSI SAS1078 integrated

circuit with support for RAID 6. The LSI MegaRAID SAS 8704ELP, MegaRAID SAS 8708ELP, and MegaRAID SAS 8888ELP are RAID controllers that unify SAS and SATA protocols.

LSI refers to these products as "secondgeneration" because they leverage advanced technologies to increase performance and reliability of internal storage systems for servers. The card offers four or eight SATA II or SAS ports, a PCI Express bus interface,

DDR2 cache memory, and support for RAID 6. With the unification of SAS and SATA II interface standards, users can opt for SATA II hard drives or SAS drives without needing a different controller. Or users can configure the system with two arrays—one with SATA II drives and one with SAS drives.

The advantage of the PCI Express host interface is significant. PCI Express is a fullduplex serial protocol, which permits data transfer simultaneously in both directions at maximum bandwidth. Compared to the older PCI bus, this method is more efficient because the original PCI bus interface used a half-duplex communication standard. This meant lower efficiency when switching from input to output and vice versa. This inefficiency is eliminated with PCI Express, and the available bandwidth is also greatly increased. The DDR2 cache installed on the LSI controllers also helps to increase the response for frequently accessed data, keeping pace with main system memory. The adapters' RAID 6 support is also a critical feature that provides extremely high fault tolerance by tolerating two simultaneous drive failures with the ability to manage unrecoverable media errors during rebuilds.

May 11, 2007

Serves multiple deployment needs, enabling users to select one of three connector configurations

(866) 574-5741

www.Processor.com/MegaRAID



**SECURITY** 

May 11, 2007

**∆**Cyber5crub

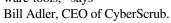
## **Erase Files Remotely & Securely**

CyberScrub's Compliance Suite Manages Erasure Over The Network

**DELETING FILES IN WINDOWS**, even emptying the Recycle Bin, doesn't guarantee that those files and their contents have really been removed from the hard drive, as some companies have discovered the hard way, either when forensics turn them up during discovery or when malefactors recover them from stolen or lost hard drives and mobile media

A variety of software tools, such as CyberScrub's Privacy Suite and cyberCide products, lets companies purge individual files, folders, directories, or entire disks using methods that exceed U.S. Department

of Defense secure file erasure standards. "Securely erase' means erasure beyond recoveryyou can't recover it with computer forensic software or hardware tools," says



CyberScrub's new Compliance Suite, a network version of the company's Privacy Suite program, provides the first network-

based selective-erase program. According to CyberScrub, the Compliance Suite is a policy-driven, automatic, passive, transparent, and fully auditable solution for the enforcement of data retention and document life cycle standards. Compliance Suite does selective erasure from a central console. IT administrators can set tasks, such as the wiping of free space, emptying the Recycle Bin, and removing traces of Web browsing, peer-to-peer applications, Instant Messaging, and other online activity. They can also set it to clear "locked" files such as Windows swap and paging files.

Automatic policy-driven erasure is essential, notes Adler. "If you erase files without a policy, you're susceptible to charges of obstruction of justice, regardless of the intention. But if the process is automatic and policy-driven, you don't have that concern."

The program also retains Windows Restore Points during free-space wiping, according to Adler.

It works on computers running Windows 2000 or newer; a Vista version should be available later this month.

Starts at \$2,699 for 50-seat minimum (including administrative console and 50-set management

Provides thorough, secure network-based file erasure

(770) 951-2080

www.Processor.com/ComplianceSuite





Length

8 inch

2 foot 2.5 foot

3 foot

4 foot 4.5 foot

5 foot

6 foot 6.5 foot

7 foot

8 foot

1 foot

2 foot

4 foot

6 foot

1 foot

2 foot

4 foot 5 foot

**Premise Wiring** 

1 meter

1.5 foot

1 meter

1.5 foot

5.5 foot

3.5 foot

1.5 foot

Item

1540

4663

1736

5413

1775

2965

3262

9160

3220 1228

2986

4671

4403

4670

4142

8037

2832

7365

4962

1965

7231

1529



Amps

10A

10A

10A

13A

13A

13A

15A

15A



18/3

18/3

18/3

18/3

18/3

18/3 18/3

18/3

18/3

16/3

16/3

16/3

16/3

14/3

14/3 14/3

14/3

14/3











tem	Length	Amps	Gaug
9431	1 foot	15A	14/3
9430	2 foot	15A	14/3
3201	3 foot	15A	14/3
9429	4 foot	15A	14/3
3154	4.5 foot	15A	14/3
9428	5 foot	15A	14/3
4586	6 foot	15A	14/3



AC Power Cord IEC 60320

250v Black





Item	Length	Amps	Gauge
8788	2 foot	15A	14/3
8826	3 foot	15A	14/3
9118	5.5 foot	15A	14/3
1409	8 foot	15A	14/3
8723	14 foot	15A	14/3







Item	Length	Amps	Gauge	
2881	1 foot	20A	12/3	
3101	2 foot	20A	12/3	
2992	3 foot	20A	12/3	
3002	4 foot	20A	12/3	
7784	5 foot	20A	12/3	
2928	6 foot	20A	12/3	
1007	2.5 meter	20A	12/3	
7995	3 meter	16A	12/3	
2770	2	204	10/0	



Length	Amps	Gauge
1 meter	15A	14/3
2 meter	15A	12/3
2 meter	15A	14/3
6 foot	10A	H05VV-F 3G1.5
6 foot	15A	14/3
	1 meter 2 meter 2 meter 6 foot	1 meter 15A 2 meter 15A 2 meter 15A 6 foot 10A

**Power** 

### To Order Cord Sets Visit www.StayOnline.com Call 888-346-4688 Or Email pcs@stayonline.com

AC Power Cord NEMA 5-15P Plug to C13 Connector





Item	Length	Amps	Gauge
5917	1 foot	10A	18/3
3862	15 inch	10A	18/3
2996	1.5 foot	10A	18/3
1092	2 foot	10A	18/3
3858	3 foot	10A	18/3
7232	4 foot	10A	18/3
1063	5 foot	10A	18/3
6085	6 foot	10A	18/3
8797	7.5 foot	10A	18/3
4680	8 foot	10A	18/3
4679	10 foot	10A	18/3
5444	12 foot	10A	18/3
2966	15 foot	10A	18/3
3581	20 foot	10A	18/3
1394	25 foot	10A	18/3
7983	1.5 foot	13A	16/3
3284	2 foot	13A	16/3
8778	1 meter	13A	16/3
1597	3 foot	13A	16/3
6755	4 foot	13A	16/3
8829	5.5 foot	13A	16/3
8779	2 meter	13A	16/3
2889	6 foot	13A	16/3
7853	8 foot	13A	16/3
8780	3 meter	13A	16/3
7238	10 foot	13A	16/3
7534	20 foot	13A	16/3
3268	1 foot	15A	14/3
2133	1.5 foot	15A	14/3
3267	2 foot	15A	14/3
8612	1 meter	15A	14/3
8874	3 foot	15A	14/3
1795	4 foot	15A	14/3
8831	5 foot	15A	14/3
8605	2 meter	15A	14/3
2888	6 foot	15A	14/3
1924	8 foot	15A	14/3
8611	3 meter	15A	14/3

Racks & Cabinets



current iSCSI or Fibre Channel-based storage? iStor Networks, Inc. is in a class of its own, providing the System 2 Solution high-performance iSCSI IP Storage.

system focusing on performance and flexibility.

#### iStor Delivers iSCSI

iStor found inspiration when it created the highest performance, up to 1160 MB/s, and most robust iSCSI products. The resulting solutions provide companies with the ability to overcome technology and total cost of ownership limitations in DAS, SAN, and NAS environments.



#### The System

Fully-integrated GigaStorATX 1GbE and 10GbE controllers conform to the ATX form factor specifications, providing a cost-effective performance-based iSCSI Storage System.



#### The Solution

iS326

**VPC3106** 

**Currently Enrolling** 

iStor-inAbled<sup>TM</sup>

Partner Program

For VAR's and System Integrators that require a vendor-provided enclosure, iStor offers the iS326 Solution. The iS326 includes the GigaStorATX System supporting eight ports of GbE or a single 10GbE for iSCSI connection, with capacity for up to 15 customer-supplied high-capacity sATA drives.

When it comes to high-performance, feature-rich, and cost-

effective iSCSI RAID storage, iStor Networks solutions should be on your evaluation short list. iStor offers you the balance of price and performance that makes iSCSI IP Storage an obvious "YES" decision

for organizations of all sizes or sophistication.



Contact iStor at info@istor.com







ISO 9001:2000

**Power Distribution** 

## **Three-Phase Power** For Blades

**New Geist ZP Series** Offers Superior Monitoring & GUI Interface



GEIST MANUFACTURING'S ZP PDU Series has expanded into three-phase while continuing the company's promise of creating products that can be modified to meet individual customers' needs and are manufactured entirely in the United States.

#### **Five New Offerings**

Geist's ZP line includes five new base units, delivering up to 17.3 kW at 208V, all ideal for blade server applications. The 35-amp, 45-amp and 60-amp threephase PDUs are offered in a variety of vertical and horizontal configurations. Each unit features UL Listed branch circuit protection via magnetic breakers with integral switch guards. These reset-able breakers eliminate the need to power down your equipment and PDU to change fuses. Mixtures of receptacle compositions are available which include C-19 and C-13 outlets.

Optional remote power monitoring is available on most models, featuring local and remote current monitoring via digital display and an Ethernet (RJ-45) connection. Geist's new EM (Ethernet Meter) options let you:

- Monitor current by breaker, circuit, or phase
- · Load balance with ease at the cabinet
- · Access without downloading software
- Receive alerts via SNMP traps/alarms
- Utilize superior GUI interface • Download data to XML

## **Three-Phase Makes Sense**

When it comes to bringing power to your cabinets, three-phase power makes the most sense. With a three-phase system, there's less wire under the floor, which improves airflow and reduces wiring confusions. While an equivalent single-phase system would have three whips, a three-phase system has one whip for the electrician to bring to the cabinet. Fewer whips to pull saves you time and money. Three-phase systems with current monitoring offer simplified load balancing, which reduces technician installation and troubleshooting time. With all three

Geist's new ZP line includes five new base units, delivering up to 17.3kW at 208V. The 35-, 45-, and 60-amp three-phase PDUs come in a variety of vertical and horizontal configurations.

May 4, 2007

phases available in a single cabinet, load balancing can be achieved at the cabinet level where similar type equipment is often found. In a single-phase system, a minimum of three cabinets may need to be looked at to balance the same load.

#### **Built To Order**

As always, all of Geist's base power distribution units can be easily built to order so the product is sure to meet your specific requirements. Production processes have been designed to rapidly fill orders and ship to your site on time. Geist does not require order minimums or penalize distribution partners for dropshipped or rush orders.

Geist employees are dedicated to principles of continuous innovation, integrity, and responsiveness to customer demands. Customer service professionals are friendly, efficient, and ready to personally assist you Monday through Friday from 7:30 a.m. to 5 p.m., CST. Geist's goal is to be the best supplier you ever work with.

## **Geist 3-Phase ZP Series**

A new line of 60/45/30-amp three-phase PDUs offering load balancing at the cabinet level, an Ethernet connection for remote monitoring with a superior GUI interface, and SNMP traps and alarms

(800) 432-3219

www.Processor.com/geist20



UL & c-UL Listed 60950				
60 Amp x 3 Phase Delta = 17.3 kW at 208V	Style	Outlets	Magnetic Breakers	Pin in Sleeve Connector
2ZPR128-056C19PS15	2U Horizontal	12 C-19	6 Double Pole	3 Pole / 4 Wire watertight
ZPW458-056C13PS15	70" Vertical	45 C-13	3 Triple Pole	3 Pole / 4 Wire watertight
ZPB128-056C19PS15	66" Vertical	12 C-19	6 Double Pole	3 Pole / 4 Wire watertight
40 Amp x 3 Phase Delta = 11.5 kW at 208				CA Style Twist-lock
ZPB368-055IT6CS15-40	66" Vertical	30 C-13 & 6 C-19	3 Double Pole	50A / 250V 4 Wire
35 Amp x 3 Phase Delta = 10.1 kW at 208V				
ZPB368-055IT6CS15-35	66" Vertical	30 C-13	3 Double Pole	50A / 250V 4 Wire
		& 6 C-19		

#### **Modify to Meet Your Needs**

- Add Ethernet Meter (EM)
- · Optional Cord Lengths 2 to 15 feet
- Cord Whip Option

Please call (800) 432-3219 or visit www.geistmfg.com for part number assistance.



## **ASA COMPUTERS**

Want your business to be more productive?
The ASA Servers powered by the Dual Core Xeon processor provide the quality and dependability to keep up with your growing business. Hardware Systems For The Open Source Community-since 1989

(Linux, FreeBSD, NetBSD, OpenBSD, Solaris, MS, etc.)

#### **Product Feature**

- -Rack solid quality rackmount system with excellent cooling.
   -Custom OS including Linux,
- Solaris\*BSD, MS Windows, Suse, Debian, etc.
- -Hardware and software RAID storage.
- -High density cluster nodes.-SATA-SCSI-SAS-Fiber Raid.
- -iSCSI and NAS storage appliances.
- -High end custom workstations.
- -On-site warranty support for most of our products.

#### 1U Dempsey/Woodcrest Storage server Stand at-\$1,841

- -1TB Storage installed. Max-3TB.
- -Intel Dual core 5030 CPU (Qty-1), Max-2 CPUs.
- -1GB 667MGz FBDIMMs installed.
- -Supports 16GB FBDIMM.
- -4X250GB htswp SATA-II Drives installed.
- -4 port SATA-II RAID controller.
- -2X10/100/1000 LAN onboard.



#### 2U Dempsey/Woodcrest Storage server Stand at-\$3,891



- -3TB Storage installed. Max-9TB.
- -Intel Dual core 5050 CPU (Qty-1), Max-2 CPUs.
- -1GB 667MGz FBDIMMs installed.
- -Supports 16GB FBDIMM.
- -12X250GB htswp SATA-II Drives installed.
- -12 port SATA-II RAID controller
- -2X10/100/1000 LAN onboard.
- -500W Red PS.

#### 3U Dempsey/Woodcrest Storage server Stand at-\$4,191

- -4TB Storage installed. Max-12TB.
- -Intel Dual core 5050 CPU.
- -1GB 667MGz FBDIMMs installed.
- -Supports 16GB FBDIMM.
- -16X250GB htswp SATA-II Drives installed.
- -16 port SATA-II RAID controller.
- -2X10/100/1000 LAN onboard.
- -800W Red PS.

#### 5U Dempsey/Woodcrest Storage server Stand at-\$6,991



- -6TB Storage installed. Max-18TB.
- -Intel Dual core 5050 CPU.
- -5GB 667MGz FBDIMMs installed.
- -Supports 16GB FBDIMM.
- -24X250GB htswap SATA-II Drives installed.
- -24 port SATA-II RAID. CARD/BBU.
- -2X10/100/1000 LAN onboard.
- -930W Red PS.

#### **Custom OEM Solution**

- -Custom chassis design per your needs for your appliances.
- -Custom logo printing.
- -Facilitating in getting various certifications like FCC/UL/CE, etc.
- -Custom installation of your images.
- -Drop ship on your behalf.

#### **Technical Expertise**

We have a highly qualified technical and engineering team consisting of Redhat, BSD, MCSE, CCNA and CNE certified engineers. They are dedicated to address any questions you may have with our hardware products. Our sales engineers are experts in providing you solutions that suit your needs while keeping your budget low.

#### 8U Dempsey/Woodcrest Storage server Stand at-\$11,441

- -10TB Storage installed. Max-30TB.
- -Intel Dual core 5050 CPU.
- -Quantity 42 installed.
- -1GB 667MGZ FBDIMMs.
- -Supports 32GB FBDIMM.
- -40X250GB htswap SATA-II Drives installed.
- -2X12 Port SATA-II Multilane RAID controller.
- -1X16 Port SATA-II Multilane RAID controller.
- -2X10/100/1000 LAN onboard.
- -1300W Red PS.



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## **VoIP Vaults Ahead**

Continued from Page 1

evident. This effort is seeing voice make its way into data applications, such as email for unified messaging.

"All aspects of business, from the SMB to large corporations, will need unified communications, which is the key to the future of the VoIP markets where landlines and mobile products are seamlessly linked so travelers and road warriors can be connected to voice, video, and data-wherever they are," says Steven Joe, president and CEO of D-Link Systems (www.Processor .com/DLink). "Converged networks allow standardization and wider opportunity for the network to be adopted by users, while removing the complexities between devices and services."

According to Arnold, VoIP features will begin to mirror the PBX feature set and will help to push the technology into a more prominent role in mobility, particularly as FMC (fixed-mobile convergence) solutions come to market and bring more extensions of the PBX feature set to mobile phones. Once voice moves to IP, he says, businesses will start using features such as find-me/follow-me, visual voicemail, and conferencing on the fly.

"The new frontier is unified communications and presence-enabled services-what this means is integration of the telephone

#### What's Hot In VolP?

VoIP technologies and trends continue to move forward at a torrid pace, and analyst Jon Arnold of J. Arnold & Associates reveals some of the more fascinating advances in this space.

#### Presence (especially mobile presence).

"Companies like lotum [www.iotum.com] are coming to market with solutions that bring intelligence to presence and allow people to communicate much more efficiently, even when on the go."

Hosted VoIP. "The hosted model works very well and can bring feature-rich, affordable solutions to a very large segment of the business market that has had very few choices until now."

FMC (fixed-mobile convergence). "This technology trend enables the seamless handoff of calls between fixed and mobile networks and is just starting to gain traction."

Dual-mode handsets. "It's still early for this, but Wi-Fi is starting to become real,

and dual mode can be a great tool to help mobile workers keep their telecom costs

Smartphones. "The appeal of an all-in-one device is very strong and will become a driver of VoIP in its own right."

Telepresence. "Led by Cisco [www.Processor .com/CiscoSystems], Hewlett-Packard [www .Processor.com/HP2], Tandberg [www.Pro cessor.com/TandbergData], and Polycom [www.Processor.com/Polycom-Inc], this is the next generation of videoconferencing. It creates experiences that are so life-size and lifelike, you can quickly forget the people on the other side of the table are virtual. One of the key benefits being touted by the vendors is reduced travel costs and how this is a green solution. When the experience is this good, it becomes a realistic alternative to travel—a big expense that all companies are looking

system with typical enterprise productivity applications such as CRM and ERP, as well as desktop integration," Steinmann says. "Intelligent click-to-dial, federation of presence information, instant messaging and document sharing, desktop-initiated conferencing, etc. are among the new features enterprises would like to use."

#### Already In Motion

The prospects certainly appear bright for VoIP in the near future, but how close is it to reaching the "established" category alluded to by Info-Tech Research? According to Arnold, this transformation is happening right now.

"Early adopters of business VoIP have been large companies, but they have only deployed it on a limited basis," he says. "As VoIP has proven itself with them, they are becoming more comfortable deploying it on a larger scale, and the more this happens, the more it filters down to smaller enterprises. VoIP continues to improve in terms of quality, reliability, scalability, and security and is now considered good enough for mainstream use."

In fact, he says, vendors are now even productizing VoIP, offering distinct solutions for different market segments, such as SMEs and larger enterprises. Further, the emergence of hosted VoIP, which can prove highly useful for smaller businesses that can't afford the capital expense of PBX systems but nonetheless desire more than regular telephony, is also helping to establish the technology.

According to some experts, telecommunications providers and manufacturers need to catch the wave now, while they can. "The strategic and competitive advantage of simply being in the market is that companies have the opportunity of gaining market share and visibility in this fast-growing market," says Sonny Su, director of technology at TRENDnet

(www.Processor.com/TRENDnet-Inc). "Companies that have presence in traditional telephony solutions better develop or acquire presence in the VoIP space, or their company may be left behind."

D-Link's Joe contends that pinpointing the precise time when VoIP morphs from "emerging" to "established" depends heavily on the marketing chain because wellknown manufacturers must first establish their brand presence with solution providers, VARs, and integrators through costeffective, easy-to-use products. He says they also must train themselves and build their expertise to offer these solutions to a broader audience.

#### SPONSORED LINKS

#### D-Link Analog Trunk Gateway (DIV-140)

Ideal solution for converging your business phone requirements to next-generation communication services www.Processor.com/DIV-140

#### Ovislink GXW-410X FXO Gateway

Offers enterprises a cost-effective, easyto-deploy VoIP FXO analog gateway www.Processor.com/Ovislink

#### Pingtel SIPxchange CallManager

CallManager is a server-based, integrated central call routing engine that also provides directory services across an enterprise VoIP network.

www.Processor.com/Pingtel1

#### TRENDnet ClearSky Bluetooth VoIP Phone Kit (for Skype)

Streamline calling procedures by taking advantage of Skype features such as Contacts, Call List, SkypeOut, and Conference Call

#### Zultys MX30

The MX30 is a powerful system that enables multimedia communications for all workers in a small office. By integrating the functions of many devices into a compact box, the MX30 simplifies the VoIP network of any deployment.

www.Processor.com/MX30

**DATA CENTER SERVICES** 

## Turn Old Equipment **Into Cash**

## **Horizon Datacom Solutions Helps Businesses Make The Most Of Their Network Hardware Investments**

HORIZON DATACOM SOLUTIONS, located in Columbus, Ohio, has one specific goal: helping businesses make the most of their network hardware investment. Many businesses are faced with growing (sometimes painfully high) capital budgets, and yet they have literally stacks of switches, routers, wireless gear, and other network hardware that they have outgrown, no longer need, or don't have room for. Some businesses find that they have racks filled with decommissioned hardware, or that due to expansion or changing needs, they don't have the right equipment.

In the past, the hardware would simply sit in a spare room or corner until it was eventually hauled away and disposed of in a mass "asset recovery" that took CRT monitors, desktop computers, printers, and other e-waste and hauled it away. But this no longer has to be the case.

Horizon Datacom Solutions specializes in refurbishing network hardware and can help you recover value out of what you have. Plus, selling your equipment to us helps keep it out of a landfill, helping contribute to your corporate "green" initiatives.

#### **Get Value From Used Equipment**

Horizon Datacom helps businesses and organizations get value back from their

used equipment. Stated simply: We turn old network equipment into cash.

We are committed to refurbishing and putting that same equipment we purchase back into useful life, which provides additional value to our customers who both save money purchasing from us and get

#### **Equipment Purchased**

We buy large or small quantities of network LAN/WAN, wireless, and VoIP equipment. Or you can use it as credit to update your current infrastructure.

#### We buy:

- Alteon
- Foundry Networks

HP

- Cisco
- Enterasys
  - Polycom
- Extreme Networks SonicWall

If you have surplus equipment, please note quantities, description, condition, and any other notes where possible.

If you frequently upgrade your equipment or have large quantities to dispose of, let us design an asset management plan for you. We can help you increase both cash flow and return on assets by faxing or emailing your list of surplus equipment.

reliable hardware, backed by our guarantee and hard-won reputation for quality and customer service.

At Horizon Datacom Solutions, refurbishing involves much more than blowing the dust off of circuit boards. Horizon Datacom maintains a full testing lab where every piece of equipment is rigorously tested and repaired if necessary. We repaint the chassis, replace missing or broken parts, and carefully repackage the finished product. In fact, many of our customers claim the hardware they purchase from us is virtually indistinguishable from new hardware.

Horizon also offers refurbishing services for companies that want to redeploy their own gear. You simply send it in, have it tested and refurbished, then it's sent back to you, ready to deploy at new locations or for new uses.

#### Real-Time Inventory

Some businesses are leery about buying from the "refurb" market—some with good reasons. eBay can be a crapshoot: You may be dealing with a guy operating out of his garage, or worse, finding yourself buying counterfeit gear.

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**APRIL 6, 2007** 

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## **PCI Express Replaces PCI**

Continued from Page 1

big to fit into new servers, and some servers may not have enough add-in slots to accommodate all the cards that are needed.

Resker says businesses can choose to purchase servers that still have the number of required, full-sized PCI and PCI-X slots to support their legacy cards. But this can cause a business to have to move away from a preferred server model or vendor just to have the capability to support legacy PCI cards. In addition, new servers and workstations that have both PCI Express and PCI slots are available, but they are more expensive because they need both PCI and PCI Express bridging support on the motherboard.

Both Baker and Resker agree that the best option for businesses that want to preserve

their investments in legacy PCI cards as they purchase new servers equipped with PCI Express slots is to use PCI expansion systems that provide plenty of PCI and PCI-X slots in a separate enclosure.

This is a great way, says Magma's Baker, for the enterprise to upgrade to low-profile servers and move the I/O outside the server into an external enclosure with dedicated power and cooling. "Keeping the PCI configuration consistent," she says, "can save a lot of money and time because the enterprise can keep using legacy PCI cards that are working just fine."

#### **Bridging The PCI Express Gap**

At their simplest, PCI expansion products such as Magma's PCI Express to PCI-X

Expansion System or Carlo Gavazzi Computing Solutions' XP PCI Expansion product line provide extra PCI or PCI-X slots located in an external chassis with dedicated power and cooling. Typically, these enclosures are connected back to the host server via a PCI Express cable connected to a PCI Express adapter card installed on the server.

Magma's 6 Slot PCI-X model PE6R4 provides six PCI-X slots through a low-profile PCI Express card. The 4U rackmount enclosure supports full-length cards in all six slots and is available with redundant, hot-swappable power supply and an optional drive cage for up to eight internal drives.

Carlo Gavazzi Computing Solutions' XP-10E PCI Expansion product is available in a 4U enclosure or bench-top expansion chassis with nine high-speed PCI slots and one PCI Express expansion slot connected to the host server via short-length and full-

height or short-length PCI Express host cards. The unit also features an internal 300-watt ATX power supply or redundant 400W or 500W power supplies.

#### What To Look For

Magma's Baker recommends looking for low-profile host cards and the ability to connect to a laptop for servicing the unit. Baker also recommends finding systems with more slots than needed at the time to ensure future expansion, as well as systems that provide for scalability and upgrade options.

In addition, she adds, slots should support full-length cards of any type. Other notable features, says Baker, include hot-swappable redundant power and SNMP capabilities, as well as industrial enclosures with optional drive bays and card hold-down mechanisms.

Resker recommends looking for PCI expansion solutions that provide a slot count appropriate for the app. Also, it's important to find PCI expansion products that have been certified with the specific PCI adapter used by the enterprise. "This is very important," says Resker, "as compatibility issues sometimes arise between the PCI interface on the PCI adapter and the PCI bridge implementation in the expansion enclosure."

Finally, Resker recommends looking for expansion systems that can provide proper power and cooling because many PCI adapters draw maximum power and have hot spots that require well-designed cooling and airflow. So, he emphasizes, buyers should look for manufacturers experienced in the design of enclosures that meet demanding power and cooling requirements.

#### SPONSORED LINKS

Magma Rugged 13 Slot PCI Expansion System (P13RR-TEL)

4U industrial rackmount chassis with remote monitoring and SNMP capability www.Processor.com/P13RR-TEL

## **PCI Expansion Products**

Product	Features	Web Site
Alliance Systems Xpand PCI Expansion Systems (EX-4000, EX-6000)	<ul> <li>Support for up to 12 PCI/PCI-X expansion cards</li> <li>4U rackmount enclosure</li> <li>350W redundant AC power supply</li> <li>Alliance StarLink PCI Expansion technology</li> </ul>	www.alliancesystems.com
Carlo Gavazzi Computing Solutions XP-10E	<ul> <li>4U enclosure with 300W or dual-redundant 400W or 500W power supplies</li> <li>Nine PCI 2.3 compliant slots and one PCI Express x4 slot</li> <li>Low-profile, short-length and full-height, short-length PCI Express host cards</li> <li>Connectivity to host via PCI Express x4 serial cable</li> </ul>	www.cg-cs.com
GE Fanuc Embedded Systems PCIE-AMC-7S	<ul> <li>Seven available PCI-X slots</li> <li>Standard height PCI Express host card (x4 or x8)</li> <li>2U, 19-inch rackmount enclosure</li> <li>280 watts power</li> </ul>	www.gefanucembedded.com
Magma 6 Slot PCI-X (Model PE6R4)	<ul> <li>Six PCI-X slots</li> <li>4U rackmount, hot-swappable power</li> <li>Support for universal or 3.3-volt cards</li> </ul>	www.Processor.com/Magma

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## Unified Messaging: The Next Wave?

### Can Your Support Plan Keep Up With The Technological Changes?

by Elizabeth Millard

NOT TOO LONG AGO, a voicemail was different from an email, and both were distinctive from a video message. But with handheld computers, PDAs, multimedia-playing cell phones, and even gaming devices that can receive email, a message's format is no longer so clear-cut.

Although the term "unified messaging" has taken on different meanings since its introduction in the late 1990s, it's come to mean the integration of different streams and sources of electronic messaging data, such as email, instant messages, voicemail, and even faxed messages, into a single repository accessible from multiple devices.

"We also think beyond just real-time access to those messages via Web and PDAs, factoring in the long-term needs of archiving and policy management on those messages by organizations and end users," says Peter Zimmer, vice president of services delivery with iConnection messaging services at Infocrossing (www.infocrossing.com).

For example, emails can be "read" aloud by a handheld device, and voicemails can be translated into text before they're even played. This flexibility in message creation and retrieval presents a potential boon in productivity, as mobile professionals can stay in touch more easily, create messages while driving or hustling through an airport, and respond quickly to long emails by talking rather than typing.

But it can also be a challenge for IT departments that need to implement support

## **Unified Communications**

As unified messaging, or UM, crops up in discussions more often, another phrase has also been bandied about lately-unified communications, or UC. Although these sometimes get mistaken for each other, there's a big difference, says AudioCodes' Lior Moyal. UM and UC are both general terms, but UC is the stomping grounds of Microsoft, which is bringing together several of its products into the effort, including Microsoft Exchange Server, Microsoft Office Live Meeting, and Microsoft Office Communicator 2007.

"Unified communications is different because it operates in real time," says Moyal, whose company uses AudioCodes gateways to enable the voice portion of its UC strategy. "Unified messaging isn't real time; it stores the messages and sends them out. Microsoft is trying to create the next generation of that." that takes into account factors such as security, storage, regulatory mandates, and software updates.

#### What Do You Need?

When contemplating how many resources and how much budget money to devote to unified messaging products, a good first step is to look at need vs. desire. Every salesperson would love the snazziest new technology and features galore, but what will he really use?

"It's not enough to find products that are affordable when deploying unified messaging; you have to also see what's in it for you," says Lior Moyal, a vice president at AudioCodes (www.audiocodes.com). (For more information on VoIP and unified messaging, see "VoIP Vaults Ahead" on page 1.)

Many products are limited in their functionality, he adds, and the main benefit is often

that users can listen to their emails rather than read them. If the sales or executive staff spends a great deal of time in transit, that might justify the expense, but if they're basically putting their emails on speakerphone while in their offices, it might not be such a good buy.

"Determine what you need based on what it will do for the company, not just for the individual using it," says Moyal, noting that IT managers should be trying to determine if the messaging products will work with their legacy systems and would be advantageous for employees or just another technology strategy that requires extensive training.

Another major factor is the number of offices involved. Moyal believes that multiple locations, particularly with international outposts, benefit from unified messaging because it centralizes the messages and makes for easier storage. But bringing messaging together with a high-level product for just one office can have much less of an impact.

#### Creating A Plan

Once the level of need is determined, it's time to come up with a workable plan. A first step will be to look at some of the most common challenges, says Zimmer, such as determining what sources of messages to include and their formats.

Another factor is what type of repository will be chosen in which to store those messages and then understanding that there might be costs and issues involved with integration and compatibility. Also, the devices will have to be able to mesh with the repository, including synchronization of data.



IT managers also have to be aware that message retrieval and storage might require more attention for archive management and could spark compliance issues thanks to multiple message sources.

"Most IT managers are just now confronting the issue of the convergence of multiple messaging sources and multiple devices accessing those messages," says Zimmer. He adds that key factors in any plan include: a business case for integrating multiple message streams that take issues such as productivity and policy enforcement into consideration; justification for messaging integration, which is usually articulated as a way to better support a mobile workforce with more efficiently routed information and more robust oversight over messaging policies; details about types of remote access allowed and policies for access and devices; and clearly stated hours for support because many mobile workers tend to work in the evenings or when traveling in different time zones.

Generally, unified messaging is much like other company-wide strategies that have to do with technology, where policies about usage are straightforward and presented to employees in written form, and support plans are created before users start utilizing the system.

#### **Automatic Drive**

Fortunately, IT departments don't have to create unified messaging systems from

scratch. There are products (see the "Unified Messaging Vendors" sidebar) that help automate the process, Zimmer notes.

"Many managed messaging providers have infrastructures that include provision-

> ing tools for adding sources of messaging and device support for user bases," he says.

> Some of the most common sources include fax and email with BlackBerry support, he notes, which can often be selfprovisioned on startup with some messaging hosting providers without the cost of setting up and managing these integration tools.

> To make support more efficient, Zimmer recommends that companies look at the best repository for multiple sources based on the applications that they're already using. Chatting with vendors such as Avaya or Adomo can help to set costs, training options, and service agreements.

> "Depending on the costs, outsourcing might be the most viable or expedient path," says Zimmer. "Other considerations should be whether there's flexible policy management over the repository

and whether you want to go with a single vendor for your messaging sources."

Do your homework before the test of implementation, and you should score well on keeping up with unified messaging trends.

## **Unified Messaging Vendors**

#### Adomo

Mobile Unified Communications

A voice application that unifies communications independent of the PBX or IP-PBX. It gives users a single inbox, so voice messages can be routed to email and vice versa. www.adomo.com

#### Avaya

Unified Communications Center An integrated suite that brings together wireless, Web, and speech-enabled access to applications, including messaging and collaboration tools.

www.Processor.com/AvayaCEBP

#### Interactive Intelligence

Communité voicemail and unified messaging An application for voicemail systems that lets users migrate from legacy systems and create unified messaging functionality.

www.inin.com

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## May 4, 2007

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## The New Face Of Collaboration

shared directory and mes-

saging platforms" and

include core integrat-

ed functions such as

email, group calen-

daring and schedul-

ing, shared folders,

threaded discussion

groups, and an API

(application program

interface) for cus-

The big two domi-

nating the ICE market

are Microsoft and IBM,

and indeed, like Coke

well-known ICE entrants are

Microsoft's Exchange server and

Outlook client, countered by IBM's

Suite, trailing with single-digit shares.

tomization.

#### **An Overview Of Enterprise-Capable Collaboration Software**

by Kurt Marko

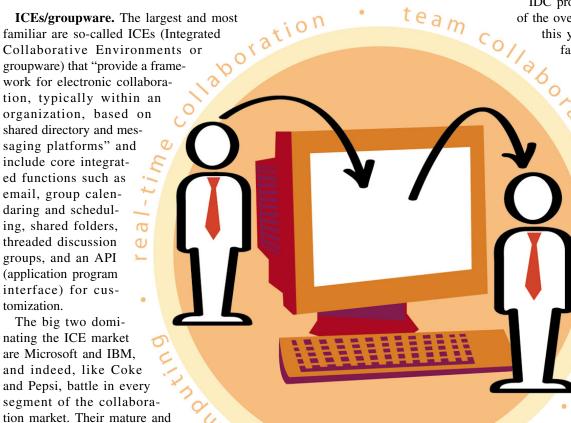
INTERNET-FUELED NETWORK computing has wrought such profound effects on business communications during the last decade that it's easy to overlook the continuing innovation in software designed to facilitate collaborative work. Interoffice mail pouches and "while you were out" message slips are distant memories, replaced by the cornerstones of computerized collaboration: email and voicemail. Yet, technology continues to creep, and in some cases gallop, into other facets of business communication. From informal forms such as instant messaging to more structured tasks such as presentations and meetings, technology is augmenting or outright replacing familiar office tasks from the watercooler chat to formal business meetings.

#### Types Of Collaboration Tools & The Usage Of Each

A convenient taxonomy for collaboration tools developed by Forrester Research's Principal Collaboration Analyst Erica Driver itemizes them into four branches: messaging (principally email and calendar sharing), team collaboration or workspaces, real-time collaboration (voice and instant messaging), and social computing (largely Web-based tools such as blogs and wikis). Similarly, Mark Levitt, vice president of collaborative computing and the enterprise workspace at IDC, divides these tools into four major product categories. (See the Collaboration Categories & Products chart for more information.)

ubiquity among home users fueling adoption in enterprises. According to Andy Nilsson, senior analyst and partner at Wainhouse Research, businesses use a mixture of consumer and in-house IM networks. A survey by comScore Networks (www.comscore .com) found that MSN Messenger (www .msn.com), Yahoo! Messenger (www .yahoo.com), and AOL/AIM (www.aol.com) control virtually all of the consumer IM market. Enterprises concerned with network

collaboration tool in IDC's pantheon, with its



Lotus Domino server and Notes client. According to recent IDC figures, combined these hold more than 90% of the \$2-plus billion ICE market with each experiencing security and uncontrolled file transfer can double-digit growth. Novell's Groupwise is either deploy IM "hygiene" products, such as a distant third with a number of smaller Akonix (www.Processor.com/AkonixIM), players, including the Oracle Collaboration FaceTime (www.Processor.com/FaceTime Comm), or Symantec's IMlogic (www Instant messaging/presence. Instant .Processor.com/SymantecCorp), or run intermessaging, or IM, is the next most common nal IM systems. IBM and Microsoft again compete head to head, with the former's Lotus Sametime and the latter's oft-renamed Office Communications Server battling a number of smaller vendors, such as Jabber,

> Bantu, and Parlano. Team collaboration space. An increasingly popular tool, which expands upon the document-sharing capabilities of groupware, is team collaboration spaces. Like their ICE counterparts, so-called "team spaces" offer document sharing, calendars, and discussion groups; however, they usually add document version management, workflow, and content syndication, often using a Web interface. The big two lock horns again, Microsoft with its various incarnations of SharePoint and IBM with Lotus Quickr. As a less mature market, they face a host of competitors, notably EMC's eRoom, but also from content management vendors, such as Vignette and Interwoven, and smaller companies, such as IntraLinks.

> Live conferencing. The last major collaboration tool category, which is often deployed as a hosted service rather than an internally run application, is live conferencing-software that facilitates real-time meetings by providing document sharing, live whiteboards, and voice and video Webcasting. According to Wainhouse's Nilsson, the best conferencing applications integrate all forms of real-time communication and provide the ability to escalate an established Web conference to voice and video if necessary. He notes that users need systems that allow them to "match the media to the message."

Conferencing products can be segmented between hosted services and standalone servers. Microsoft targets both realms with

Office Live Meeting (service) and Office Communications Server (server), while IBM counters with its server product, Sametime. The conferencing market is dominated by hosted providers, notably WebEx (scheduled to be acquired by Cisco in the fourth quarter of this year), although there are a raft of SaaS (software as a service) competitors, along with a few smaller application server vendors.

#### **Collaboration Software Market Trends:** What's Hot

IDC projects worldwide revenue growth of the overall collaboration market of 17% this year and 26% by 2011, with the fastest growth in live conferencing and team collaboration spaces.

> Driver of Forrester notes that Web 2.0-based social computing technologies are experiencing an explosion of innovation and proliferation, with many vendors incorporating blog and wiki technology into their products. A related development, mentioned by both Driver and Levitt, is the ability of newer tools to

create mashupsessentially hybrid Web applications that contain content from multiple sources in a single user interface.

While Microsoft and IBM dominate many segments of the collaboration market-pro-

moting one-stop shopping and integration across their products—they are closely watching Google (www.google .com). The increasing breadth of its productivity software includes email, calendaring, IM, word processing, spreadsheet, and Web site building and will soon add presentation graphics and wikis-all embedded with collaboration features. Driver notes, "Google's latest foray into making affordable messaging, collaboration, and office productivity tools targets business people worldwide and takes dead aim at Microsoft Office. . . . Google is not simply attacking Microsoft's core email and office productivity applications business—Google is expanding the market for workplace productivity tools to include people who have traditionally been left without them."

#### **Effect Of New Tools On IT**

According to IDC's Levitt, ICE products will remain the most important collaboration tool supported by internal IT staff because email and groupware are seen as critical services. He notes that a majority of workers still do not use team collaboration, and thus its administrative overhead isn't yet large and will be mitigated as usage increases because new product versions, such as SharePoint Server 2007, significantly improve scalability. While live conferencing applications will increasingly be available as standalone products, Levitt still sees them often procured as an outsourced service. Nilsson of Wainhouse cautions IT managers to carefully study the costs of insourcing, noting, "The economics are not always in favor of internal hosting."

Enterprises face a multitude of options as they develop a collaboration strategy and an abundance of choices when selecting supporting tools. Although the plethora of vendors and products can be daunting, with overlapping functionality across product categories making comparisons confusing, key features are nevertheless converging toward a set of core application types—all in the direction of the collaboration promised land: unified communications.

## **Collaboration Categories & Products**

Company/URL	Product
ICE/Groupware	
IBM Lotus www.ibm.com	Domino Server; Notes Client
Microsoft www.microsoft.com	Exchange Server; Outlook Client
Novell www.novell.com	GroupWise
Oracle www.Processor.com/ORCL	Collaboration Suite
Instant Messaging/Presence	
Bantu bantu.com	IM Server; Presence Server
IBM Lotus	Sametime
Jabber www.jabber.com	Jabber XCP
Microsoft	Office Communications Server
Parlan www.parlano.com	MindAlign
Team Collaboration Space	
EMC www.Processor.com/EMCCorp	eRoom
IBM Lotus	Quickr
Interwoven www.interwoven.com	WorkSite Server
IntraLinks www.intralinks.com	On-Demand Workspaces
Microsoft	SharePoint Server (various versions)
Vignette www.Processor.com/Vignette-Co	Collaboration
Live Conferencing	
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Citrix Systems www.Processor.com/Citrix	GoToMeeting; GoToWebinar (SaaS)
IBM Lotus	Sametime
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Microsoft	Office Live Meeting (SaaS) Office Communications Server (product)
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- \* 24 x 1" Hot-swap Drive Bays
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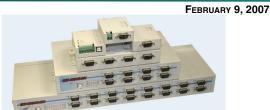


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## **Product** Releases

#### PHYSICAL

#### Cabling

■ Leviton Voice & Data bolstered its Fiber Raceway line so businesses can better customize their own Fiber Raceway Systems. The company now offers Fiber Raceway Systems in orange, yellow, black, and gray. It also offers several sizes for the systems, including 2- x 2-, 2- x 4-, 4- x 4-, 4- x 8-, and 4- x 12-inch designs.

Several new parts are available for the Fiber Raceway System, including the Outlet Trumpet Fitting for the 4- x 12-inch systems. The Outlet Trumpet Fitting manages cables that exit the system and enter cabinets or racks, and an End Support Fitting lets users permanently secure 4- x 4inch transitioning (from the overhead system to the cabinet top). Another new item, the Vertical Drop Fitting, lets 4- x 12-inch systems drop cabling below the raceway without obstructing other fibers.

Customers can buy new mounting hardware, such as the Ladder Rack Mount Kit and Heavy Duty Ladder Rack Mount Kit. The kits let users mount the Fiber Raceway Systems over existing ladder racks. The Ladder Rack Mount Kit attaches to 1.5- or 2-inch ladder racks and supports the 4-, 8-, and 12-inch wide Fiber Raceway Systems.

#### **Power Distribution**

■ Cyber Switching announced its new Galaxy Series 3 Phase distribution units. Customers can use their existing equipment, including single-phase power equipment, within the new 3 Phase infrastructure. The Galaxy 3 Phase breaker panel increases the life cycle of existing equipment and reduces costs. The Cyber Switching 3 Phase units are available now in multiple configurations.

#### **Power Protection**

■ Three 8kVA SmartOnline Hot-Swappable Modular UPS Systems are available from Tripp Lite. The SU8000RT3U is a 200 to 240V unit, while the SU8000-RT3UHW is hardwired for this voltage range. On the other hand, the SU8000-RT3U1TF allows additional 120V output via a transformer module. The hot-swappable nature of their power modules let data center and enterprise personnel perform maintenance without downtime.

#### COMMUNICATIONS

#### Security

■ Juniper Networks announced the Juniper Networks ScreenOS version 6.0 and IDP (Intrusion Detection and Prevention) version 4.1 to provide enterprises with visibility and control of business applications and users. Juniper Networks ScreenOS version 6.0 is an operating system for the ISG (Integrated Security Gateway) and SSG (Secure Services Gateway) firewall/VPNs. Version 4.1 of the IDP software provides expanded userand application-layer visibility of the content and users traversing the network. The software programs enable customers to set and enforce security policies across the network and improve application delivery and performance. ScreenOS 6.0 and IDP 4.1 provide capabilities for enterprises to create a responsive environment for accelerating the deployment of applications and services, as well as maximize existing Juniper Networks infrastructure investments.

#### Switch

■ Cisco introduced its Catalyst 6500 Series Supervisor Engine 32 with PISA (Programmable Intelligent Services Accelerator), which is aimed at providing users with positive experiences when working with such new applications as IP video, VoIP, and TelePresence. Cisco also introduced a blueprint for Campus Communication Fabric network services to guide IT managers in transforming their networks into platforms for all communications and collaboration. According to Cisco, the 6500 Series Supervisor Engine 32 is the first modular switch to integrate the ability to analyze stateful and stateless application traffic flows, which provides proactive security protection, compliance with corporate policies, and network resource utilization management. The 6500 Series Supervisor Engine with 8x1 Gigabit Ethernet Uplinks will be available next month starting at \$28,000. Pricing for the 6500 Series Supervisor with 2x10 Gigabit Ethernet Uplinks is \$28,000.

#### Telephony

■ Citel released the EXTender 4100 and PBXgateway 4100. The 4100 Series is an enterprise voice network solution designed to provide access to the features and applications of a central corporate PBX for SOHO workers. The EXTender 4100 is a customer-premises device available with one or two ports. The single-port unit is available with an optional FXO port; the dual-port unit includes a standard FXO. Digital handsets connected to an EXTender 4100 with an FXO port have automatic 911 call routing for easy caller locating. The 2-port PBXgateway 4100 terminates EXTender 4100s at the corporate PBX site. A corporate PBX connects to a PBXgateway 4100, which then connects to a router that moves voice traffic out to the network. At the remote location, another router or DSL modem routes traffic to the EXTender 4100 and then on to a digital handset. The 4100 Series is interoperable with Panasonic, NEC, Avaya Definity, and Magix handsets and Definity, Magix, and IP Office PBX platforms. Nortel and Ericsson interoperability will be available soon.

#### **Wireless**

■ Buffalo Technology released the WLI-U2-SG54HG and WLI-U2-G54HG, which are part of Buffalo's high-gain wireless lineup. The two USB 2.0 adapters support the 802.11g Wi-Fi wireless standard up to 1,600 feet and draw power via USB connection. They also have Buffalo's AOSSTM (AirStation One-Touch Secure System) setup feature, which offers a simplified connection process. The USB adapters include WPA, WPA2, and WEP 64-/128-bit wireless encryption. The WLI-U2-G54HG features a signal strength indicator and a directional antenna. It is small and light at 0.2 pounds and 3.5 x 2.8 x 0.9 inches (HxWxD). The WLI-U2-SG54HG is a long, thin unit that uses suction cups to adhere to your notebook or desktop. It also includes an omnidirectional antenna to boost range and connection quality. Both wireless adapters have setup utilities that support Windows Vista and older versions of the Windows operating system. They have twoyear warranties, as well as 24/7 toll-free tech support, and will be available for \$49 each this month.

Go to Page 18

#### **Telephony** www.Processor.com/OvisLink2

**FEBRUARY 2, 2007** 



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## **Product** Releases

Continued from Page 17

■ Meru Networks announced the 3TDS (3-Tier Traffic Distribution System), an overlay distribution system to support network loading associated with 802.11n adoption. The 3TDS is a scalable system that is independent of underlying network backbone topology. It separates the control traffic from the data traffic between the controller and the APs to provide a single point of control with scalable points for data distribution. The overlay architecture has three components: controllers, DPs (distribution points), and APs. Controllers centrally manage APs in addition to DPs, but DPs perform the data-forwarding functions of aggregating traffic from APs. As more data throughput is needed, enterprises can add DPs at any appropriate aggregation point in the overall switched network.

Meru Networks also released the Meru 802.11n product suite to provide products based on the IEEE 802.11n Draft specifications. The Meru 802.11n product suite includes the AP300 family of dual-radio 802.11a/b/g/n APs; the MC5000, a modular, telco-grade, multigigabit, five-blade chassis controller for up to 1,000 APs (per chassis); and the 3TDS. The suite addresses enterprise needs for over-the-air coverage, capacity, performance, compatibility, and wired infrastructure scalability. The Meru AP300 APs can integrate with the channellayering capability of the Meru WLAN System. The Meru WLAN System can assign the best physical AP to each client and can help ensure optimal network performance. Meru's layered channel architecture allows all available channels to simultaneously serve a given area. Customers can layer more channels to add capacity.

#### **END NODES**

#### Mobile

■ Siemens announced that Simatic Box PC 627B and Simatic Panel PC 677B now include Intel Core 2 Duo processors. These systems can operate at temperatures of up to 55 degrees Celsius. Siemens' Box PC can install directly in a control cabinet, and the Panel PC combines computing and operating units. The Panel PC comes in both 12- and 15-inch configurations, as well as both touch- and key-operation configurations. The touch-key versions comes with 17- or 19-inch monitors. In addition to the 2.16GHz Intel Core 2 Duo T7400 processor, these products also incorporate an Intel 945GM Express chipset. Siemens' new products also include 10/100/ 1,000Mbps Ethernet, optional onboard Profibus, one DVI-I interface, four Hi-Speed USB ports, and one 24V DC or 120/230V AC power supply. The Box and Panel PCs are available with Windows 2000/XP Pro MUI/XP Embedded.

#### Storage

■ Plasmon launched the newest version of its UDO (Ultra Density Optical) archival storage platform. UDO2 features a 60GB storage capacity, which is twice the capacity of the previous generation of UDO, and offers a 50% better performance. UDO2 fully supports Plasmon's UDO Archive Appliance for storage capacities from 1 to 76TB per appliance. The UDO2 archival storage product delivers trusted data authenticity, permanence, and media longevity and is fully backward read-compatible with UDO1. Customers who purchase a UDO Archive Appliance or

G-Series library with UDO1 in 2007 can take advantage of the UDO Upgrade and move to UDO2 for a minimal fee.

#### Components

■ IBASE released the IB930 half-sized PISA CPU card, a low-power card that runs with Intel Core Duo and Core 2 Duo processors. The card uses the Mobile Intel 945GM Express Chipset for Embedded Computing, which is made up of the Intel 945GM Graphic Memory Controller Hub and Intel I/O Controller Hub 7-M with a 533MHz and 667MHz frontside bus. Additionally, the card has dual-channel DDR2 sockets onboard supporting up to 2GB of system memory. The Intel Graphics Accelerator 950 graphics architecture runs at core speeds of 400MHz and supports Dual Independent Display and Dynamic Video Memory Technology. A Marvel PCI-E Ethernet controller provides gigabit connectivity. Other features include a Compact Flash socket; four serial, five USB, and two SATA ports; a mini-PCI expansion socket; digital I/O; and a watchdog timer.

#### SOFTWARE

#### Database & Data Mining

■ Sybase released Sybase IQ 12.7 analytics server, which now supports embedded ETL (extract, transform, load) and provides business intelligence, advanced analytics, predictive modeling, reporting, and tools for meeting regulatory compliance. With embedded ETL, Sybase IQ 12.7 lets companies build data transfers, move data, convert data, and maintain data. The latest version of Sybase IQ analytics server includes

better load function, improved security, and enhancements to OLAP (Online Analytical Processing) tools. Sybase IQ 12.7 is currently available for Solaris 64, Windows 32/64, Linux 32/64, and AIX 64. Sybase IQ Extended Enterprise Edition pricing starts at \$45,000 per CPU, and the Encrypted Column Option add-on costs \$15,000 per CPU

#### Network & Systems Management

■ GFI Software announced the release of EndPointScan, a free online service that lets users check what devices are or have been connected to computers on a network and by whom. Using this diagnostic tool, users can identify those areas where the use of portable storage devices could pose a risk to the integrity of the company's systems and data. The uncontrolled use of portable mass storage devices coupled with data theft techniques are a major threat to network security and could lead to security breaches, data theft, viruses, and other malware entering a company's network. EndPointScan carries out granular checks across all types of ports-USB, Firewire, Bluetooth, Infrared, PCMIA, and Wi-Fi-on all machines. This utility can scan multiple computers simultaneously. EndPointScan is fully compatible with existing network management or administrative tools such as Active Directory, and it will work on Vista systems.

#### Security

■ Check Point Software announced IPS-1, dedicated IPS (intrusion prevention system) software with real-time attack mitigation, *Go to Page 19* 

NETWORK & SYSTEMS MANAGEMENT

May 4, 2007

Power Management

APRIL 27, 2007

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always been products that could handle one or more of these tasks, but now
data center managers can have it all.

The IPV42/70 series (so named because they come in either 42- or 70-inch heights) Intelligent Power Controllers from Pulizzi Engineering cover all these points. Every aspect of each outlet can be viewed locally, via a digital meter, or remotely, via Web browser, Telnet, or SNMP software. Out of the box, the IPV42/70 series can monitor voltage and current but, with an optional environmental sensor kit, can be expanded to include data on temperature and humidity. There are additional inputs allowing for integration of switches to detect rack enclosure events, and the software interface is feature-rich.

The software can be configured either to work with SNMP management software by sending traps or to send email alerts when triggered by an event. Each unit, outlet, and sensor can be named in software for a user-friendly interface, and there is a provision for multiple user logins for remote access. Pulizzi Engineering highlights the

versatility of this line by enabling users to specify certain characteristics at order to suit an array of applications. Customizable attributes include voltage, current, number of outlets, and connector types.

Pulizzi Engineering is an

ISO 9001:2000-certified company that designs and manufactures its products in the U.S. It has a reputation for high quality that has won the company business from many Fortune 500 companies, as well as some government

agencies. This quality is evident in its products, which meet objectives and certifications such as RoHS, UL safety specifications, and CE directives.

Pulizzi Engineering IPV42/70 Series Intelligent Power Controllers

Start at \$799

Distribution, control, management, and monitoring in a single device

(605) 334-8999

www.Processor.com/IPV-42-70



## **Product** Releases

Continued from Page 18 granular forensic analysis, and flexible deployment to protect against worms, automated malware, and other hybrid threats, both known and unknown. Since the acquisition of NFR Security in January 2007, Check Point has been integrating NFR's technologies to enhance Check Point's NGX Unified Security Architecture and strengthen network defenses. Check Point has integrated IPS-1 into security event management components of the Check Point product family, and it is now available in SmartCenter's SmartView Tracker and Eventia Analyzer. Customers can track IPS-1 events alongside firewall and VPN events from the same SmartCenter management console, as well as correlate these events with event data from other Check Point and third-party products using

Eventia Analyzer.

■ Disuk launched iSecure card management for its Paranoia2 and SafeTape inline devices, which keep backup data secure and compliant with various standards. The product is designed to fill daily security and operational management needs of encrypted backup data through such features as key generation, management, and entry; selectable encryption modes; selectable secure and nonsecure modes; engineering functions; and full audit and reporting abilities. iSecure includes security management for creating, configuring, and deleting smart cards, as well as an operation management package for controlling and remotely monitoring Paranoia2 and SafeTape. Starter kits that include hardware, software, and 10 smart cards are now available.

■ Quest released the Quest InTrust Plug-in for Exchange, which lets users track detailed mailbox owner and non-owner access and activity in real time. Designed for use in Exchange Server environments, Quest InTrust Plug-in for Exchange v1.0 also lets users audit changes to permissions and configurations. Quest InTrust collects, stores, and reports information to system administrators about which emails are read, deleted, and copied and by whom. The plug-in also alerts system administrators when unusual owner or non-owner activity has taken place. The Quest InTrust Plug-in is available for \$20 per enabled user mailbox.

#### Storage

■ NovaStor released NovaBACKUP 8.0, software that provides data protection for end users, home offices, and small businesses. Version 8.0 features improved licensing packages for operative scalability and relevance for each user. The software can also provide data protection for servers with SQL-based systems, such as customer relationship management or billing systems, as well as Microsoft Exchange servers. NovaBACKUP provides single-workstation protection for critical personal information, including pictures, music, and important documents. NovaBACKUP Server offers single-server protection for small business needs. NovaBACKUP Business Essentials is designed for small business data protection with advanced functionalities, including protection of SQL and Exchange servers. The software can perform direct streaming to optical devices, including Blu-ray devices.

■ Onaro unveiled an updated version of its SANscreen Application Insight, a storage resources management application designed for medium-sized to large organizations. System administrators can use SANscreen Application Insight 2.0 to analyze storage tier assignments, load balance the application portfolio, and route out infrastructure-related issues that can cause application performance problems. Administrators can also use SANscreen Application Insight 2.0 to view performance data for existing bottlenecks, what triggers them, and what associated impact that has on other system resources. Onaro SANscreen Application Insight version 2.0 is available starting at \$70 per port. . . . . .

■ Quest introduced the latest iteration of its Quest Recovery Manager for Active Directory, an automated restoration suite that lets system administrators restore and recover both individual objects and a system-wide image in the event of an Active Directory failure. Quest Recovery Manager for Active Directory 7.6 lets users restore the system to a given point in time or make more precise adjustments by only restoring the attributes, objects, or Group Policies needed. The offering also lets users automate restore processes and commonly performed tasks to minimize downtime and personnel requirements. Quest Recovery Manager for Active Directory 7.6 is available starting at \$10 per managed user.

#### Telephony

■ TalkSwitch announced the TalkSwitch Attendant Console. This software provides the tools for monitoring and managing calls from a PC. The process is entirely software-based, and no additional hardware is

necessary. Users can view call queues, as well as the status of lines and extensions. TalkSwitch Attendant Console provides options to hold, transfer via drag-and-drop, park, and page. The software also displays caller ID name and number, call duration, and call status. IM is also built into Attendant Console. TalkSwitch's new software is compatible with both traditional and VoIP systems and costs \$599 for a full-site license.

#### SERVICES

#### Network & Systems Management

■ HP announced HP Service Desk, an outsourced, single point of contact, end-user help desk that scales from fully standard, shared delivery solutions to custom solutions for medium-sized to large enterprises. The new HP Service Desk has been re-engineered and repackaged to take advantage of lower costs, HP global sourcing capabilities, best practices from HP Software, and client management toolsets. The offerings include a bounded Foundation Service, a suite of Standard Options to enhance or modify the solution to meet specific needs, and a Custom Service Desk that can be created from the best practices used in the Foundation Service or a company's own capabilities. HP's Foundation Service can be tailored to specific customer requirements and has clearly defined integration points into the enterprise's communities, workflows, and support models. HP Service Desk uses HP Software to streamline IT service processes and manage the IT service life cycle through service-level management capabilities.

HVAC APRIL 13, 2007

## **Cooling For Cramped Spaces**

MovinCool CM12 Ceiling-Mounted Unit Designed To Save Space & Money

SPOT COOLING IS an energy-efficient alternative to central air conditioning. But often the main roadblock to efficient cooling of cramped server telecom and equipment rooms is the lack of floor space to accommodate a roll-in portable spot cooler. The MovinCool CM12 offers a convenient

solution: It's a lightweight, space-saving, easy-to-install ceilingmounted unit.

The CM12 delivers 10,500Btu/H of cooling in a self-contained unit that mounts easily with off-the-shelf hardware. It connects to a standard 115V, 15-amp circuit.

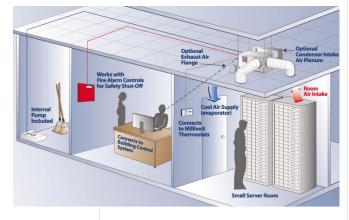
The CM12 features the shortest top-to-bottom profile in the industry—

only 15.5 inches—ensuring it will fit into nearly any drop ceiling. In addition, the CM12 comes with several cost-saving capabilities and safety features:

- Conveniently controlled by most offthe-shelf Millivolt thermostats
- Works with fire alarm controls for safety shut-off
- Self-contained system requiring no refrigerant piping
- Built-in supply and return air flanges enable easy duct installation and improved air circulation
- Warning signals and alarms for condensation overflow and unscheduled shutdown can be wired to a central location
- A standard internal pump

• Mounting brackets designed for off-theshelf mounting hardware

In addition to the CM12, MovinCool offers the Office Pro lineup of portable spot cooling solutions for low-temperature equipment cooling; the Classic and Classic



Plus Portable Series for harsh environments; and the PC7 Portable Air Conditioner for individual hot spots.

# MovinCool CM12 Offers an energy-efficient, space-saving alternative to central air conditioning \$2,786 (800) 264-9573 www.Processor.com/MovinCool

Complete Backup & Sharing

## Sans Digital DS-207 Synology Series Features Flexible Storage Management & Backup Options

SANS DIGITAL'S NEW Disk Station-207 Synology Series is ready to become a Windows 2003 Server companion. With features such as RAID 1 protection, Web server support, and simple data backup, it can fit into any sophisticated computing environment yet remains cost-competitive.

**STORAGE** 

Flexible storage management. The DS-207 is

the first two-bay model of the Synology Disk Station series. Using the DS-207, you can create a large-capacity RAID 0 or reliable RAID 1 volume. Budget-sensitive users use one hard drive to create a non-RAID volume and upgrade it to RAID 1 later when the second hard drive is added.

When the hard drive on DS-207 is full, you can expand more storage simply by attaching an external hard drive to the DS-207's USB port of DS207.

Complete backup. Data backup is so important, but it tends to get ignored. The DS-207 makes data backup so complete and automatic that backups can be done without your attention. With the DS-207, you can find the backup alternatives that fit your needs:

- Network Backup is designed for data backups from the DS-207 to another Synology product that also supports Network Backup function.
- Local Backup lets you back up data from DS207 to an external hard drive



attached to DS207 via the USB port.

May 4, 2007

Desktop Backup simplifies desktop backup with
Synology Data Replicator
II. PC users will enjoy the
easy-to-use backup tool
to automatically back up
important data.

Build a dynamic Web site. Web Station runs Apache Web server, which

lets you create and publish a Web site with only few steps. With preinstalled PHP+ MySQL, you are free to install popular blog or bulletin board programs on DS-207—no advanced IT knowledge is required to build up your community.

**Network sharing.** The DS-207 makes data and device sharing easy and controllable. With the DS-207, you can also share printers, Web, multimedia files, and more.

Sans Digital DS-207 Synology Series

Designed to meet almost any backup or network attached storage need

(562) 949-1988

www.Processor.com/SansDigital20



COMPONENTS

## Performance-Driven Server & Storage Clustering

Mellanox ConnectX IB Dual-Port 20Gbps InfiniBand Adapter Devices
Can Speed Data Access, Lower Costs

MELLANOX CONNECTX InfiniBand HCA (host channel adapter) devices deliver low latency and high bandwidth for performance-driven server and storage clustering applications in data centers and other environments. Clustered databases, parallelized applications, transactional services, and high-performance embedded I/O applications will achieve significant performance improvements resulting in reduced completion time and lower cost per operation.

ConnectX IB simplifies network deployment by consolidating clustering, communications, storage, and management I/O and providing enhanced performance in virtualized server environments. The devices are well suited for blade server and landed on motherboard designs due to their small overall footprint requirement.

Clustered and client/server applications achieve maximum performance over ConnectX IB because CPU cycles are avail-



able to focus on application processing instead of networking functions.

A unified Infini-Band cluster for computing and storage achieves significant advantages over

multifabric networks. Standard block and file access protocols leveraging InfiniBand RDMA result in high-performance storage access. Data reliability is improved through the use of T10-compliant Data Integrity Field. Fibre Channel over InfiniBand features enable the use of cost-effective bridges for connecting to Fibre Channel SANs.

#### Benefits

• High-performance networking and storage

Guaranteed bandwidth and low-latency services

**APRIL 27, 2007** 

- End-to-end storage integrity
- I/O consolidation
- Virtualization acceleration
- Scales to tens of thousands of nodes

Mellanox ConnectX IB Dual-Port 20Gbps InfiniBand Adapter Devices

Can achieve significant cost-performance advantages over multifabric networks for computing and storage

(408) 970-3400

www.Processor.com/ConnectX-IB-HCA



**DATA CENTER SERVICES** 

SERVICES APRIL 13, 2007

## **Get Cash For Your Data Tapes**

Recycling Your Media Has Never Been So Safe, Sound & Simple

MOST ENTERPRISE DATA CENTERS are apprehensive about recycling data tapes due to security issues. Recycle Your Media has earned a reputation for being one of the

largest and most respected full-service data tape recycling companies worldwide.

RecycleYourMedia.com is the most viable solution for your end-of-life data

tapes. Recycling your media is environmentally sound and economically sensible given that it can recoup IT costs.

When recycling your data tapes, you need to be assured that the data will be destroyed and rendered unreadable. We practice the most secure methods, complying with governmental privacy and storage laws. We are highly experienced in data eradication and will offer data destruction certificates and volume serial reports to ensure your sensitive data is irretrievable.

Matthew Bernard, IT network manager at John Wiley & Sons, says, "Although hesitant to release my used data tapes, I found Recycle Your Media's data tape recycling service to be secure, professional, and more than I expected."

Recycle Your Media works with Fortune 500 companies, banks, government

agencies, law firms, and hospitals, making us a reliable source for all your data tape recycling needs.

Why pay for tape shredding? Recycle Your Media can pay you to recycle your data tapes. Recycling data tapes is simple: Give us a call and we take care of the rest.

#### Recycle Your Media

We buy all types of tapes and recycle them using secure and environmentally sound methods

(877) 798-2737

www.Processor.com/Recycle



#### Think Green: Cash For Data Tapes



Data tapes we recycle: SDLT, 9940, 3590, LTO, AME AIT, and many others.

SECURITY MARCH 30, 2007

## Steelcape Secures & Accelerates Data

## New Solution Effectively Sends Data Without Opening Ports In The Firewall

COMPANIES SPEND BILLIONS to deter hackers. Current security offerings rely on encryption, but Steelcape believes in a more powerful approach that rejects the notion that ports must be opened and stay open. The Steelcape solution allows transactions to be completed without creating a hole in a user's firewall, and without the need for ongoing involvement of a central server.

Steelcape has developed an alternative TCP/IP communication method. This results in secure data being able to traverse the firewall unhindered. Steelcape alters IP

packets, enabling them to pass through firewalls unchallenged and unmodified. Steelcape's blend of patented computing algorithms and packet manipulation can be used to replace elements of the existing TCP/IP protocol stack or supplement the existing TCP/IP protocol stack. It is an ideal VPN or VLAN alternative and is compatible with TCP/IP version 4 and 6.

Steelcape concentrates security at the data level, and our easy-to-implement software agent deployment provides faster and more secure communication between computers.

#### With Steelcape, you benefit from:

- Elimination of the need to open firewall ports. You'll see a greatly reduced risk of internal and external hacking and reduced cost of security solutions.
- Direct communication between two computers with limited overhead. This means reduced bandwidth requirements by up to 25%, reduced lag time by 10%, reduced number of servers by up to 25%, and a reduced support staff.
- Bypassing of the transport layer, resulting in a decentralized enterprise architecture.

The Steelcape solution can be deployed from either a hardware appliance or software-based agent. Typical implementations are to deploy a point-to-point implementation that takes minutes to show results. The Steelcape Enterprise Manager provides reporting and managing of the digital signatures and encryption rules.

#### **Steelcape Solution**

Uses an alternative to TCP/IP that results in secure data being able to traverse the firewall unhindered

(310) 622-7004

www.Processor.com/Steelcape





PHYSICAL INFRASTRUCTURE

MARCH 30, 2007

## **Meeting Data Center Physical Needs**

Rittal RimatriX5 Package Combines Racks, Cooling, Monitoring & More

RITTAL'S RIMATRIX5 is the integral, scalable, and efficient system solution for ultimate IT performance. The RimatriX5 incorporates a number of unique products:

Server and network racks. With RimatriX5 server racks you take delivery of a system platform with perfectly matched climate control, power, and security solutions. RimatriX5 places emphasis on maximum packing density and efficient space utilization. Flexible configuration of the IT racks improves TCO and helps lower the day-to-day rack operating costs.

Data center power. Interruptions to critical business processes, whether due to hardware faults, production breakdowns, communications failures, or insufficient or nonexistent protection against voltage fluctuations, can have far-reaching consequences. With RimatriX5, the demands with regard to redundancy, scalability, and maximum availability are bundled into a single system. The solutions help reduce costs and boost the availability of the overall system. It is even possible to retrofit new modules without interrupting operation.

**Data center cooling.** The RimatriX5 offers passive cooling utilizing the ambient air; active, rack-specific cooling, and high-performance cooling for temperature-neutral data center expansion. In each case, the systems are tailored to your needs and application requirements, taking into consideration all ambient conditions. Software-assisted planning tools minimize investment outlay and provide for maximum peace of mind.

Data center security. With the CMC-TC Rittal offers a modular monitoring system with optimum protection for IT racks and rooms. Because the system is modular, it can be adjusted to the individual requirements of the existing infrastructure. Extension and retrofitting are also possible.

Data center monitoring. When it comes to security and remote maintenance, RimatriX5 offers full service from a single partner. From a single software interface, you can analyze and control the temperatures of racks or components, check the operating status of the UPS backup, monitor video surveillance for the rooms and equipment, and evaluate the power management and battery needs.



#### When it comes to IT equipment disposal we are serious. Let us worry about Data Destruction, EPA regulations, Transportation, Down time and Insurance. Why tie up your resources or take chances with your data or environmental issues? Call DMD today.

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#### ALERT-A-RACK SERVER RACK SYSTEM

#### **Protect Your Mission-Critical Hardware** From Heat & Humidity!



- Alerts You If Your Heat Or **Humidity Exceeds Your Settings**
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- Locking Full Perforated Doors
- 2 Sets of Heavy-Duty Stainless Steel Multivendor Adjustable Rack Rails
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- Available in 22U, 36U, or 42U and 31.5" or 39.4" Deep
- Information Support Concepts, INC

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## PROCESSOR.com



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## **Control Who & What** Is On Your Network

**Lockdown Enforcer Delivers Powerful & Precise Network Access Control** 

LOCKDOWN NETWORKS' Lockdown Enforcer puts IT back in control of the network by automating access policies to keep the network safe from at-risk devices and unauthorized users. With Enforcer, all devices on the network stay in continuous compliance with security policies and access to networks is smoothly automated, even for guest users.

Lockdown Enforcer supports all networked devices and is an overlay to existing networks. And as an out-of-band appliance, it won't slow your network down and will scale to support next- generation networks, even 100G.

#### **Powerful Policy Engine**

Lockdown Enforcer's Precision Policy Engine integrates identity, device health, location, and other factors to determine which network users should be on the network and to assist in device remediation when compliance problems occur. Authentication and other policy inputs place devices into production, guest, and private quarantine VLANs. If a device is

quarantined for "health" violations, a Rich Quarantine Environment enables end users to self-remediate their systems without helpdesk support.

A new feature for Lockdown Enforcer is the ability to directly input syslog notifications into policy actions, enabling any IPS,

IDS, NBA, or other security system to trigger policy actions, from quarantine to notification.

#### **Enterprise Features**

Lockdown Enforcer integrates with any managed switch and most popular WAPs. No hardware or software upgrades are required. It communicates with managed Layer 2 switches via SNMP and a command-line interface and provides the same coverage for wireless access points.

Support for multiple authentication **mechanisms.** Enforcer supports 802.1x port-based authentication, Windows authentication, RADIUS, and Web logon ensuring the most appropriate type is applied to users and devices.

Agent or agentless device assessment. Enforcer audits devices for virus and spyware protection, personal firewalls, OS versions, patches, DHCP servers, unauthorized services, and more. Enforcer uses agentless scans to ensure minimal impact on client devices.

Integrated authentication server. Enforcer works with existing RADIUS servers and also includes a standalone authentication capability using a built-in RADIUS server.

**Integrates with Directory Services.** Enforcer's native LDAP support ensures compatibility with popular enterprise directory services, letting you utilize user and group membership data to create policies at the group or individual

High availability. Lockdown Enforcer is available in a 2U form factor, with redundant processors, disks, and power supplies. Both the 1U and 2U versions of appliance can operate in redundant pairs for maximum network availability.

Automatic access. Enforcer dynamically assigns users to production, guest, or quarantine VLANs based on policy. Lockdown uses private VLANs to ensure quarantined devices are isolated from one another.

Configurable audits. Enforcer allows audits to be designed to suit specific requirements. In addition to preset scans, you have control over audit depth and schedules.

Syslog integration. Allows IDS, IPS, NBA, or other systems to directly trigger policy actions.

Aggregates and baselines vulnerability data. Enforcer combines real-time and historical audit results to increase accuracy of assessment and establishes baselines



to create effective, actionable data, avoiding unneeded quarantine events.

Centralized reporting. Enforcer generates real-time and historical reports available in a number of exportable formats. Consolidated data can be presented using predefined or custom formats to support enterprise-wide management, operations, and compliance needs.

Workflow and notification. Lockdown NAC supports two-way integration with help desk and enterprise management software and integrates with workflow ticketing systems to accelerate remediation. Tickets are automatically assigned based on policy and output is generated via email, Syslog entries, or SNMP traps.

Backup/restore. Configuration and audit/enforcement data can be uploaded or downloaded to any workstation with a Web browser. Lockdown includes a tool to automatically generate backup files.

All-in-one NAC appliance that ensures all networked devices adhere to device security policies

(866) 844-8080

www.Processor.com/Enforcer



Enforcer Hardware Specifications				
	Processor	Network Interface	Power Supply	Weight
Lockdown 1U	Celeron	1 x 10/100/1000 Ethernet	1 300W ATX, PSU with PFC power supply	15 pounds
Lockdown 2U	Dual Xeon	1 x 10/100/1000 Ethernet	1 500W ATX, PSU with PFC power supply	46 pounds





#### UltraMatrix™ Remote

#### Connects 1,000 computers to up to 256 user stations

- Multi-user, multi-platform KVM IP switch
- Supports PC, Sun, Apple, USB, UNIX, and serial devices
- High quality video up to 1280 x 1024
- Secure encrypted operation with login and access control
- Scaling, scrolling, and auto-size features
- View 4 computer connections using the quad-screen mode



#### UltraConsole™ Remote

#### Access servers & serial devices from anywhere in the world

- PC, SUN, UNIX, Linux, USB, and serial devices
- Supports serial devices such as routers, switches, and more
- Emulates VT100/VT220 terminals
- Secure encryption operation
- Scaling, scrolling, auto-size and quad screen features
- View 4 computer connections using the quad-screen mode



#### UltraLink™

#### Manage & monitor servers from anywhere in the world

- High-quality video up to 1280 x 1024
- Secure encrypted operation
- Scaling, scrolling, and auto-size features
- Quad screen, real-time viewing of 4 computers
- Compatible with most KVM switches
- Available in single, dual, and quad models

## PC, Sun, Apple, USB, UNIX, Serial Devices



## **KVM Switches**



#### UltraMatrix™ X-Series

#### Expandable, multi-user switch for connecting 1,000 computers

- Multi-platform units have serial VT220 terminal emulation
- Advanced visual interface (AVI)
- Security features prevent unauthorized access
- Free lifetime upgrade of firmware
- Video resolution up to 1600 x 1280
- Multi-lingual Menu



#### UltraView™ Pro

#### Access or Manage 2 to 256 computers from a single KVM station

- Economical
- Easy to use, install, and expand
- Audio and serial support
- Advanced visual interface (AVI)
- Security features prevent unauthorized access ■ Free lifetime upgrade of firmware



#### QuadraVista™

#### **Display 4 computers** on a single monitor

- View live, real-time data in each window
- Easily switch to and control each computer in Quad or Picture-in-Picture (PiP) mode
- Video resolution up to 1920 x 1200
- VGA and DVI video supported
- Supports USB and PS/2 computers
- On-screen menus for easy set-up

#### Fiber, CATx, DVI/VGA, PS/2 or USB



## **KVM Extenders**



#### **CrystalView**™

#### Extends keyboard, video, mouse, audio and serial up to 1000 ft

- Supports USB, PS/2, or Sun
- Serial and full stereo options
- Available in single, dual, or quad video models
- Supports video resolutions up to 1600 x 1200
- Video tuning and skew adjustments available ■ Dual version allows another KVM near computer



#### CrysrtalView™ Pro

#### Extends keyboard, video, mouse, audio and serial up to 33,000 ft

- Supports DVI video resolutions up to 1920 x 1200
- Supports Fiber or CATx cable
- Supports singlemode or multimode fiber cable
- Supports PS/2 or USB keyboard and mouse
- Supports for local KVM station

- Fully automatic KVM sharing



#### ViewLink™

#### Extends keyboard, video, & mouse up to 1000' over CATx

- Automatic compensation and equalization
- Automated video skew adjustments
- Models available for PS/2, USB or both
- Video resolution up to 1600 x 1200 ■ Compatible with KVM switches
- Operating system independent

#### Organize, Streamline Server Rooms



## **KVM Accessories**



#### RackView™

#### 15", 17", 19", 20" LCD flat panels Fold forward & backward designs

- Built-in single or multiple user KVM switch options
- Supports AT/XT, PS/2 and Unix computers
- DVI and S-video options available on 19" and larger LCD

■ Optional multi-media version with TV tuner & stereo speakers

- LCD flat panel and keyboard can be sold separately ■ Available with full size, full function Sun keyboard



#### RackView™ Panel Mount LCD Mounts vertically in a standard 19" rack

- Available with a 15",17", 19", 20", or 23" LCD
- 19" and 20" models support DVI and VGA inputs
- Resolution up to 1280 x 1024
- Fits in 7 9 rack units (Depending on model)
- DVI and S-video options available on 19" or larger LCD ■ Quick and easy rack mounting installation



#### VideoSplitter™ CAT5

#### Distribute, amplify & extend video to 6 or 12 monitors

- Video resolutions up to 1600 x 1200
- Each remote monitor can be up to 1,000'
- Optional Audio and Serial
- Easy to install ■ Rack mountable chassis

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## **OPINIONS**

## **Texas Solitaire**

I spent the weekend and most of this week traveling through Texas (again) as I volunteered to speak at the latest Dallas .NET User Group's Code Camp and continue on with a fivecity tour that included New Orleans on Monday (the Greater New Orleans .NET User Group), Dallas again on Tuesday (the Dallas ASP.NET User Group), College Station on Wednesday (the Aggieland .NET User Group), and San Antonio on Thursday (the Alamo PC Organization).

As I've said on many occasions, these groups are a great way for developers (and me) to get more insight into how .NET works from local and, in my case, imported speakers. The INETA (International .NET Association) Speakers Bureau sponsors many of my talks and helps bring world-class speakers to user groups all over the world. It leverages a pool of 57 speakers whose expertise varies widely, into virtually all aspects of .NET and other Microsoft technologies. I suggest that IT managers encourage their teams to take advantage of these (usually free) sessions. While INETA pays for pizza, the ASP.NET group in Dallas uses the subsidy to bring in a barbeque feast—yum.

#### **Learning When To Quit**

While traveling, I often find myself spending too much time waiting in places where I can't get connected, so I try writing some code, work on my novel, or just play solitaire. While winning only occasionally, it occurred to me that solitaire and many other games can teach us an important lesson, one that too many of us have not learned. Essentially, when to give up. In some endeavors, no matter how well you work or play, the outcome cannot be successful; all you can hope for is to realize this early enough so you don't waste your time trying to achieve the impossible.

When one applies this principle to application development projects, it's clear that (again) too many of us don't know when to quit, or perhaps not even begin. Suppose you get hired to work for a city that wants a new fozgiggle. You have no idea what that is, so you do your research, talk to the current staff, and get a focus group's feedback in an attempt to get a pretty good idea what a good fozgiggle should do and how it should behave. Given

a healthy amount of planning and budgeting, you and your team go off to build your prototype and perhaps even launch a build plan.

The question is, when does one know that the design will actually work or fall so short of the original goal to make the product and the project a waste of time, money, and people? Everyone is hesitant to admit that he's made a mistake—big,

small, or on a global level. Giving up is rarely as cheap as simply starting a new game of solitaire. If you back away, the customer might be worse off than before vou started. No one likes to seem incompetent, inept, or just ignorant because of lack of foresight to recognize the real issues facing the development or implementation of the task or chose to ignore them.

#### **Learning From Your Failures**

If I might quote George Bernard Shaw, "We learn from history that we learn

## WILLIAM (BILL) VAUGHN

William (Bill) Vaughn is an industry-recognized author, mentor, trainer, and subject-matter expert on Visual Studio, SQL Server, and ADO.NET. He's worked in the computer industry for over 30 years, including 14 years at Microsoft. He's written seven editions of the "Hitchhiker's Guide to Visual Basic and SQL Server" and three editions of "ADO.NET and ADO Examples and Best Practices." Vaughn and Peter Blackburn also wrote the best-selling "Hitchhiker's Guide to SQL Server 2000 Reporting Services." Visit his Web site at www.betav.com.

nothing from history." Sadly, this is as true for businesses and development projects as it is for governments—and not just our own. In any case, I think it's vital to know when to stop throwing good resources after bad. Sure, there will be those who said that the expenditures of time, people, and money were all wasted. However, I also think that those who participated in the project are now far more

experienced—at least they have learned one way that does not work. The real trick here is to leverage past experience when you get your next assignment—if you get the chance to have a next assignment, that is. We simply must learn what can be done, what should be done, and who is capable to do the job given the constraints.

I chatted with a police officer at the annual San Antonio Fiesta celebration last night. He told me of yet another case of how those with good intentions tried and failed to implement a complex report-

> ing system. Four years into the project, the city is stuck with the multimillion-dollar bill but apparently not a single report, other than the invoice. Higher-ups in the city recently made the painful (and embarrassing) decision to call it quits on the project.

> Had the decision-makers been more diligent and more informed and had the developers had more experience with the tools, applications, and systems used to implement complex appli-

cations, perhaps, just perhaps, the outcome might have been different. Perhaps, just perhaps, the city has learned from this mistake—theirs and the developers'. Perhaps we can all learn when to back away from lost causes, despite the chaos it leaves behind.

> Send your comments to bill@processor.com



# This Is Only A Test

## **Ensure Your Security Defenses Work Properly**

by Sandra Kay Miller

WITH REGULATORY COMPLIANCE, malware, and phishing thrusting data and network security into the spotlight, organizations need to know when their security defenses begin to fall short.

"Companies don't care about the hackers as much, but what they do care about is keeping their names out of the headlines over losing 30,000 credit card or Social Security numbers," says Shon Harris, lead author of "Gray Hat Hacking: The Ethical Hacker's Handbook" and several other security titles. Customer information leaks of private data can put an organization out of business or cost hundreds of thousands of dollars in recovery costs, customer ill will, lawsuits, and fines.

#### **Defense Tools**

Security professionals understand that threats and vulnerabilities are constantly evolving. They need to not only regularly maintain security systems such as firewalls, IDS/IPS, and antivirus/spam/spyware scanners but also monitor them to ensure they continue to deliver adequate coverage. To address this, there are a number of solutions on the market that can aid administrators with the task of testing and monitoring their security defenses.

Paul D. Robertson, president at FluidIT Group (www.fluiditgroup.com), previously worked with securing networks for the U.S. Army and the White House. He advocates

tools such as Traffic IQ Pro from UK-based Karalon (www.karalon.com). Traffic IQ Pro is Windows-based technology designed to audit and validate existing security infrastructure, including nonpacket packet filtering devices such as application firewalls, IDS/IPS, routers, and switches. It works by creating a virtual machine on a pair of network adapters. Adapters can be virtual, physical, or wireless. Stateful network traffic is then routed bidirectionally through the virtual machine for analysis, giving administrators access to powerful features, including traffic replay, scanning, and reporting.

While Traffic IQ Pro is simple to use thanks to an intuitive GUI that lets users quickly set up audits and test scenarios, Robertson believes that such tools need to be driven by someone who can interpret the results and tie them to associated business risk. "You wouldn't want to shut down a critical business function when a simple implementation change could negate the risk turned up by an automated tool," he says.

Other tools Robertson suggests are the Nessus Vulnerability Scanner from Tenable Network Security (www.Processor.com/TenableSecurity), Firewall Analyzer from AlgoSec (www.algosec.com), and Mu-4000 from Mu Security (www.musecurity.com).

#### The Overall Security Network

Testing security defenses, however, must first begin with the overall design of the security infrastructure. "Security is not an add-in that you can put on top of a poorly designed network. You need to build your network with the idea that there will be choke points where you can install reasonable firewalls, and you need to understand

what traffic goes back and forth; think in terms of isolating critical systems from non-critical systems, even if it means running some extra wire," says Marcus Ranum, chief security officer at Tenable, inventor of the proxy firewall and one of the first to implement a commercial firewall.

Robertson agrees. "For the class of things that get attacked, it's more efficient for SMBs to do due diligence up front in selecting their platforms and tools to see if there is a history of security issues."

Ranum also thinks that more important than testing security is to actually understand how your network is used. He suggests having a system in place to examine firewall logs for failed outbound traffic attempts or failed traffic between your choke points. "It is meaningless to talk about testing unless you know what you're testing," he says.

#### **Tools For Security Testing**

Testing tools, such as vulnerability scanners, can identify vulnerabilities on your critical systems and assist with remediation. Ranum suggests starting with Internet-facing servers and moving next to critical internal servers. Administrators should also run periodic scans to identify and validate new systems when they are installed on the network.

Security testing isn't a one- or two-time shot—it's a process that must be maintained, along with the infrastructure, over time to ensure that it is not weakening or being ignored. "Security, unlike anything else that happens on your network, will 'rot' over time if ignored," says Ranum.

Testing security defenses are also critical to maintaining regulatory compliance.

Data centers should know what government

#### SPONSORED LINKS

#### eEye Digital Security Retina Network Security Scanner

Vulnerability assessment solution that identifies known network security vulnerabilities and assists in prioritizing threats for remediation www.Processor.com/eEye

#### Layer 7 Technologies SecureSpan XML Firewall

The SecureSpan XML Firewall includes support for all leading directory, identity, access control, SSO (Single Sign-On), and Federation services

www.Processor.com/SecureSpan2

regulations apply to information security practices and tailor their testing programs to satisfy audit requirements.

Using security defense testing tools is very effective for Web-based applications, but Robertson feels they are becoming increasingly less effective for complex firewall rules. "From an audit perspective, it's more efficient to do configuration reviews than traffic tests for complex rules," he says.

Configuration reviews require more expertise, which SMEs often do not have. Robertson says, "Training programs are the key. Employees aren't going to get far without some peer assistance and training."

Another option is to outsource through a company that can provide comprehensive vulnerability assessment services, such as San Francisco-based FusionStorm (www .Processor.com/FusionStorm). Using Information Assurance Methodology that the National Security Agency developed, FusionStorm conducts a comprehensive security and compliance audit as well as a physical assessment of the network and security infrastructure prior to conducting both internal and external vulnerability assessment tests. FusionStorm will then work with your organization to solidify any weaknesses found during testing.

SECURITY; APPLICATION NETWORKING

May 4, 2007

# Manage Bandwidth & Security With User Identity Resolution

## A10 Networks Appliances Help You Improve Security, Increase Performance & More

**A10 NETWORKS' EX SERIES** and IDsentrie provide one-of-a-kind bandwidth and identity management capabilities to help your enterprise simplify network management and improve security.

#### **IDsentrie**

IDsentrie is the industry's first network identity management appliance with instant user identity resolution. With IDsentrie, organizations improve their security and compliance requirements by enabling quicker network forensics. Busy IT departments can speed troubleshooting with IPto-ID Services instantly resolving network issues to the users responsible. System administrators are more productive with Unified Identity Manager's ability to centrally provision and manage user accounts from multiple data stores simultaneously. Employees are more productive with User Self Help Services eliminating the need for help desk engineers to reset passwords and unlock accounts. Security is increased with network authentication and Radius features preventing unauthorized network access. And IDsentrie's rich reporting and auditing features provide full user identity visibility.

The appliance's new version 2.0 firmware offers additional database support, enhanced identity management capabilities, customizable self service features and an improved GUI and reporting tools.

**Key features in version 2.0:** 

**SQL support.** Supports Oracle SQL, Microsoft SQL, and mySQL, bringing support across a variety of popular and custom applications.

Generic parser. Custom parser rules can be created to allow the IDsentrie Identity Event Manager to parse any text-based events from third-party devices, enhancing user identity forensics.

User-customizable self service. For self-service password and account management, users can now configure their own self service questions and answers, further decreasing the time needed from



The IDsentrie appliance offers integrated features designed to enhance network authentication.

the help desk to service customers on account management issues.

Improved GUI and reporting tools. IDsentrie's GUI has been streamlined to speed access to many of its key features and has added a new reporting function to let users quickly access IDsentrie's more than 140 reports.

#### **EX Series**

The EX Series is the industry's only secure WAN management appliance with



The EX Series secure WAN management appliance offers identity-based application visibility.

identity-based application visibility. By managing bandwidth and traffic with unprecedented user and application visibility, the EX Series helps organizations of all sizes secure, optimize, and scale their network edge and perimeter. WAN management functions are consolidated into an appliance with user identity capabilities, so organizations can simplify their management of edge services and increase performance and reliability for applications while simplifying troubleshooting, compliance, and identity forensic activities.

With the EX Series' advanced Feature Chaining capabilities, customers can mix and match EX Series features to customize WAN management solutions to fit their network requirements without sacrificing performance or adding unnecessary latency, unlike implementing point play products from multiple vendors.

#### The EX Series provides:

Instant WAN user visibility. Correlates between WAN application activity and user identity for top band-

width usage, IM, file transfer, and email applications. Provides top user information for more than 100 business application classes for network tracking, troubleshooting, and compliance.

Advanced WAN optimization. Integrates link load balancing, advanced bandwidth management, site-to-site compression, and cache redirection to optimize and control WAN resources.

# Network infrastructure security. Provides firewall load balancing and identifies network anomalies to protect against attacks such as Distributed Denial of Service, port scans, address sweeps, protocol misuse, malformed packets, and much more.

Scalability and reliability. Leverages an SMP (symmetric multiprocessing) architecture to deliver up to 2Gbps of aggregate throughput and rate shaping/limiting capabilities. Ensures service availability with redundant RAID-1 hard drives, advanced redundant power supplies, and removable smart fans.

## A10 Networks EX Series & IDsentrie

The EX is a high-performance appliance that manages bandwidth with unprecedented user visibility; the IDsentrie is the industry's first network identity management appliance with instant user identity resolution.

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# Overcoming Data Protection's Weakest Link

## **CDP Recovers Information From Any Point In Time**

by Curt Harler

WITH TODAY'S TECHNOLOGY, it is possible to produce or access data from any place on the globe in real time. So why shouldn't a small to midsized enterprise be able to recover data from any point in time—down to the minute—as well? Who has time to sort through a weekly backup for a needed data set?

#### Covering The Time Between

Systems today can recover information at that level of granularity. Called continuous data protection, CDP is the ability to recover data not just for specific, isolated previous states captured in a daily or weekly backup but to get that data back to any point in time.

While daily replication backups are valuable, a crash at 3 p.m. on a workday can mean a loss of 15 hours' worth of data if the previous backup was done at midnight. CDP covers the times between backups and snapshots.

"Continuous data protection is automatic saving of every change to data on a system to another storage location," says Tom Coughlin, principal at Coughlin Associates and a consultant with Peripheral Concepts. It captures every version of data for a user. "This data can be restored to any prior point in time," he continues, adding that there are many technologies used to capture this data for different sorts of files and applications.

"When you look at data protection, determine which ones are the company's critical applications and which are less critical," says Frank Jablonski, director of

#### SPONSORED LINKS

#### InMage DR-Scout Suite

Ideally suited for implementing consolidated remote replication and continuous backup based on CDP technology www.Processor.com/DR-Scout

#### Mendocino Software InfiniView

Data capture occurs in real time, enabling recoveries from any previous point in time or process, up to and including the most current points

most current points
www.Processor.com/InfiniView

product marketing for CA (www.Processor .com/CA). "It is important to understand the value of data and to focus attention on it accordingly. If you cannot afford to lose it, use CDP. If you can afford some more time in the recovery, do a backup to disk."

#### Integrated, Holistic CDP

Jablonski recommends IT take a "holistic" approach to data recovery. Some applications occupy different spots on the continuum. "Keep in mind that there are different types of CDP," he says. While CA offers a standalone product, he says that few companies use it that way. "It is very important to have your CDP integrated," he says.

Some SMEs rely on snapshot technology to do the job. Snapshots are captures of a set of files and directories as they were at a given point in time, Coughlin says. He says snapshots could be an element of CDP, but they can also be used to ensure that data that changes constantly is backed up accurately at a point in time.

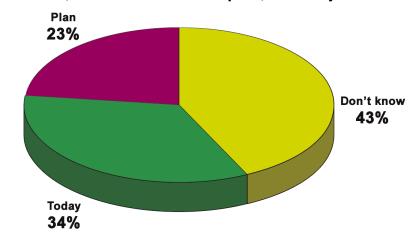
CA claims to have pioneered the development of true, continuous data protection in 2002 as an integrated capability of its WANSync data replication product. CA XOsoft's Enterprise Rewinder provides this same capability in the form of host-based software agents managed from a central console, data recovery software that works with existing hardware, and software for fast recovery with minimal data loss.

CDP creates a known, good point in time for data recovery. One concern with traditional backups is that they replicate everything—viruses, worms, and other problems. "Data replication is good for data recovery but not for disasters," Jablonski says.

"If the server crashes, the data center floods, local CDP does not help," says Jablonski. He recommends moving data outside the data center and falling back to a true, known, good point in time. "This turns the outlying location—whether a remote office or a commercial site—into a true disaster recovery site," he says.

Coughlin says CDP can provide local disaster recovery, too. "If the CDP system is designed properly, it could be used to provide a working copy of the stored data, so a facility can be kept online, although probably at a lower performance than the original storage system," he says. "This can

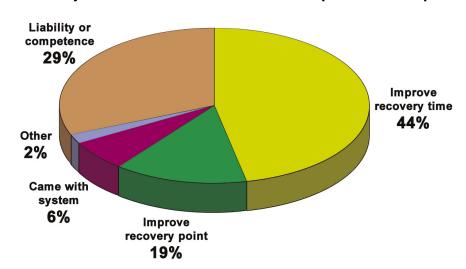
#### Do You Have, Or Do You Plan To Acquire, A CDP System?



More than half of the respondents to the Continous Data Protection study currently use CDP. A sizable portion, 27%, plan to upgrade that system.

Chart from Peripheral Concepts and Coughlin Associates.

#### What Major Reason Made You Decide To Acquire A CDP Capability?



Improving recovery time is the main reason users move to CDP.

Chart from Peripheral Concepts and Coughlin Associates.

allow a small business to stay in business even if primary storage fails."

There are some disadvantages to CDP. For one, more server space is required. "This might be lower performance than the original products," Coughlin says. He notes that a CDP server should be on a separate storage system to make sure that it could be kept going if the original system fails.

CDP works well in a virtualized environment. One larger server can handle the needs of 10 servers.

Jablonski notes that 80% of all restores are done within the first two weeks of generation. He suggests SMEs plan to keep CDP data a bit longer, perhaps a month, and then send it off to tape.

#### **Choose The Right System**

"There is a lot of disparate technology out there," Jablonski says. "It can be a nightmare for the backup administrator to manage it all. People need to be able to look at all of their recovery management through a single pane of glass to manage their whole environment," he adds.

"Back up as often and as well as possible," Coughlin says. "CDP can be an element in this." He says the best way to get started is to assess the amount of data you want to protect, determine the requisite recovery window, and define acceptable limits of data loss and, if appropriate, what kind of SLAs are available from vendors.



# Does The Choice Of Operating System Matter Anymore?

## **Industry Analysts Weigh In On The Issue**

by Bill Hayes

AT THE END OF LAST YEAR, Jason Maynard, a software research analyst at Credit Suisse, predicted that Microsoft's new OS Vista would be the last of the "big bang" operating system releases from Microsoft. While Microsoft was quick to state that it had even more exciting operating system editions in store, there has been a good deal of talk since then, asking if the operating system matters as much as it once did.

At Gartner's 2006 Fall Symposium, Vice President in Gartner Research Brian Gammage, in his "Client Computing Scenario" presentation, said that while operating system-agnostic applications are on the rise, it's not time to declare that desktop operating systems and OS-specific applications no longer matter.

#### **Importance Of Applications**

According to Gartner's Research Vice President Michael Silver, "While many newer applications are OS-agnostic, older ones are not, and legacy stays installed 'forever.' It's not uncommon to have 10-to 15-year-old apps. We'd estimate that around 70 to 80% of the typical enterprise's apps still require Windows."

"The OS matters because of the apps that run on it, but certainly, OSes have added many services that have helped application developers," Silver notes. According to Silver, OS-specific application development offers a very rich development environment that has been hard to duplicate on OS- Bajarin continues, "There is thought that eventually the Internet browser will be all that a person needs, but that is a pipe dream at least for the next 10-plus years, since we would need a more powerful Internet backbone to handle this type of Web-based computing, as well as higher-

"It is the fact that we want to do more with a computer, and for the foreseeable future, the computer and a robust OS will still have to do the heavy lifting for a lot of applications, especially ones that are media-intensive."

- Creative Strategies' Tim Bajarin

agnostic development in the past. However, technologies such as Flash and Ajax are really making a difference now, he says.

#### **More Demanding**

"The choice of operating system is still important because operating systems are being asked to do much more today than in the past," says Tim Bajarin, principal analyst of Creative Strategies (www.creativestrate gies.com). "They have to handle security, media management, playback, and distribution, as well as serve as the platform for software applications and software innovation."

speed connections that were ubiquitous around the world."

While some administrators or others may claim that users only focus on the major application they want to use and not the operating system, Bajarin says this doesn't make sense. "A killer app is not the issue here," says Bajarin. "It is the fact that we want to do more with a computer, and for the foreseeable future, the computer and a robust OS will still have to do the heavy lifting for a lot of applications, especially ones that are media-intensive," he says.

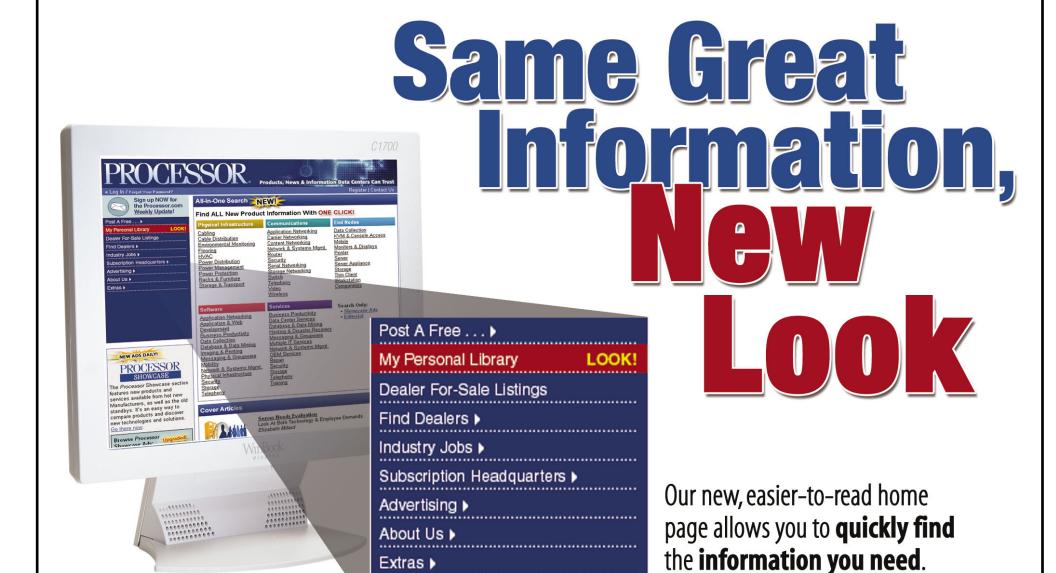
#### **OS Benefits**

According to Aaron J. Seigo, Linux software architect for KDE.org, OS-specific advantages are still important. "Since the operating system is what drives the hardware and provides integration with the rest of the computer environment, it is indeed key," he says. "The average end user may not perceive it as such, but the truth of the matter is that certain operating systems limit your access to your data through such measures as unnecessary DRM (digital rights management), as well as your options."

Seigo notes, "Open-source operating systems, on the other hand, tend to let you choose how you interact with your media, as well as provide access to choices for things such as thin client networks at no extra cost or technical additions."

As for choosing "killer" applications over operating system advantages, Seigo says that today this is generally true only for vertical or niche software titles because the remaining software on all platforms is "good enough" for most users.

So while visionaries may see a future where OS-agnostic applications reign, today's operating systems with many legacy applications and rich development environments will continue to gather users into their respective camps for some time to come.



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#### **SIX QUICK TIPS**

## **Practical Advice On Data Center Management**

by Julie Sartain

DATA CENTERS ACROSS THE GLOBE all face the same issues every day: how to work faster and be more productive; how to save money; how to make money; how to be more successful; how to provide quality products and services for a fair, profitable price; how to ensure a safe environment for customers and staff; how to attract and retain a high-quality, educated workforce; how to maintain absolute security for clients, colleagues, and company-wide employees; and what should be avoided at all costs in most data centers. We asked several data center managers—your colleagues and peers—for their advice and comments on these issues, "Tell us your secrets," we asked them. "Share your expertise, give us a few tips." These are their responses.

#### **Save Time & Money**

Saving time and money, increasing profits, and reducing overhead-all for a fair and profitable price—is a challenge for any company, any size, anywhere. Calvin Nicholson, director of product marketing at Server Technology (www.Proces sor.com/ServerTech), says, "Our tips for saving money are all about the data center equipment; for example, turn off unused equipment—kilowatt readings per drop, per cabinet, or per cabinet per square foot is a huge expense that can be significantly reduced. In addition, if a device fails or locks up, reboot it remotely; don't roll out a truck to that location for a manpowered solution."

"The biggest time and money saver is database security," says William Madaras, public relations manager at IPLocks (www.Processor.com/IPLocks-Inc). "This is a huge issue that concerns every level of

IT professional, and the related costs, in terms of dollars and reputation, are immeasurable."

"One solution," says Bill Allen, director of product management on the data center team at Avocent (www.Processor.com /Avocent), "is proactive IT management—rather than reactive—with a solution that can handle legacy equipment and the new products of today. This is the best investment for today and the future."

#### **Make Money**

Tips for making money are endless and depend on many factors, such as product necessity, market value, advertising techniques, cost to produce, actual selling price, overhead, labor, etc. But Andrew Ryan, senior manager of public relations at Symantec (www.Processor.com/SymantecCorp), has a unique tip about making money. Ryan notes that it's not always about the money your product makes; sometimes it's about the money it saves.

"In terms of ROI, security software isn't a revenue generator, and its benefits are better measured by preventing loss of critical information, which can result in downtime, loss of customer and vendor confidence, and in some cases, fines for violating various external regulations and laws around data retention and security," says Ryan.

#### **Be More Successful**

"Regardless of the infrastructure you have in place today, you can make your data center more successful," says Avocent's Bill Allen. "Rolling your legacy equipment as well as your new equipment into a single management system improves operational efficiency and effectiveness."

According to Allen, there is a significant trend in the industry today toward virtualization to leverage existing assets by placing multiple virtual servers on a single host server. As you build out these virtual systems, attach them into your management system, as well. The truly successful data center managers are strategic in their planning process this way. They examine new products, as well as new practices, in a test lab first. Once they know these products and procedures meet IT's mission, as well as the corporate business objectives, then the data center managers release these items onto a live network.

"Our tips for success include providing better service to customers, keeping remote workers in touch, saving money on long-distance calls, and using email and instant messaging—both have many benefits and many risks. But, can you imagine the competitive disadvantages to an organization that does not have email—or, in the near future, instant messaging?" says Frank Cabri, vice president of marketing at Face-Time Communications (www.Processor.com/FaceTimeComm).

#### **Communication: Newer, Safer, Different**

"FaceTime Security Labs and other such products enable the safe and productive use of greynets, such as instant messaging, Skype, Web conferencing, and P2P file sharing," says Cabri. "Our products impact IT and data center workers because these applications deliver significant business value, but they can also introduce business risks. These can be minimized with a qualified research team dedicated to the collection and analysis of threats generated through the use of greynet applications."

### **Most Important Tips**

Maintain absolute security in your data center. Security is a vast and infinite area, from physical location burglaries to identity theft to information espionage to piracy—these are all valid concerns that require absolute protection. But absolute security does not exist in any data center. Many companies' products and services can help your data center get close to an absolute solution, but you should still be extremely cautious—close is not absolute.

For email and Internet security issues, we interviewed Greg Olsen, director of product management at Sendmail (www.Processor .com/Sendmail-Inc), a messaging technology company that protects Internet communications. He says, "The bulk of the data center appliances offered by providers today are engineered to address email threats in an inbound mail stream—antivirus, antispam, antiphishing, etc. This problem can be resolved with software or appliances."

Avoid some data center practices at all costs. "When purchasing for your data center, you should avoid purchasing separate systems for managing the hardware or virtualized servers. Unless you integrate the manageability, it will quickly become a nightmare. Take the time to be strategic, and the time and cost savings will be there," says Avocent's (www.Processor.com/Avocent) Bill Allen.

"What we avoid at all costs in our data center," says Server Technology's (www.Processor .com/ServerTech) Calvin Nicholson, "Is neglect—neglecting to provide redundant power, ignoring future expansion, disregarding equipment upgrades, purchasing improper equipment, and obvious solutions like using products (such as Enterprise View) for device management, alarm management, maintenance, warranty, and asset tracking. Doing nothing can be just as hazardous as doing too much."

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WE'VE BEEN THROUGH the experience ourselves, which is why we've spent countless hours creating an all-in-one resource that's easy to navigate and use. The Processor Showcase section has one goal: making it easy for you to find and compare hundreds of products from dozens of leading manufacturers.

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Product categories are sorted under five areas: Physical Infrastructure, Communications, End Nodes, Software, and Services, with subcategories listed in alphabetical order under each category. Once you've found the product subcategory you need, click the link. You'll see a page with product information results sorted in three areas: Showcase Ads (concise product listings that include product photos and a brief description), New Product Overviews (more detailed product-focused editorial articles), and Most Recent Articles (more general articles covering products and information related to that category).

For now, let's focus on the Showcase Ads section. You'll see a list of product types. Find the type of product you want and click the link; the resulting listings page shows a product photo (when available), manufacturer and product name, and the first few words of a basic description. You'll find the most recent additions to the site at the top of this listings page.

Once you've identified a product you want more detailed information on, click the link. A new browser window opens showing a detailed product description along with links to contact the manufacturer regarding the product or a link to view the manufacturer's Web site. If you know the specific product name or manufacturer you want to know more about, search by advertiser or keyword. Click the Showcase Ads link under Search Only in the All-In-One Search area. There you'll find options to search By Advertiser and By Word/Phrase Search. By Advertiser lets you link to all products offered by a specific manufacturer. By Word/Phrase Search lets you search for specific products, features, or other keywords.

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## WHAT'S HAPPENING

# **Know Your Network**

#### **Northwest Performance Software Specializes In Discovery**

by Chris A. MacKinnon

WHO ISN'T CONCERNED about internal network security these days? If you don't know your network intimately, perhaps it's time that you do. One company that is enabling small to midsized enterprises to know exactly what lies on the network (both locally and beyond) is NWPS, aka Northwest Performance Software (www.Processor.com/NorthwestPerfSoft), a Washington-based network information and discovery business. Kirk Thomas, founder and president of NWPS, says network analysis, information, and discovery are key components to internal network security.

#### Northwest vs. Industry

NWPS provides software tools for use on a Windows platform that allow enterprise network administrators to obtain necessary information about their networks. Thomas says, "Our tools help find devices that are residing on the network and assist in keeping that information current. NetScanTools Pro, for example, is composed of many tools that provide information about network devices. Our Managed Switch Port Mapping Tool, on the other hand, actively gathers and reports information about the topology of a network from information contained in SNMP managed network switches."

Thomas says NetScanTools Pro uses both active and passive means to discover devices. He says network admins who are interested in assessing the state of the subnets within their control can use NWPS' tools to rapidly find devices connected to those LANs.

According to Thomas, the current network information and discovery industry (that his company competes in) is filled with many competing programs, all with the goal of providing an IT department with information about the layout of computers and other network devices in the organization. "These programs," he notes, "implement a discovery process to gather enough information about each device so that the asset can be identified and its location determined. Many programs go beyond simple discovery and documentation to include such features as intrusion detection and vulnerability assessment."

Thomas says many software programs are available that do both discovery and documentation. He says they range from very expensive packages down to simple ping sweep utilities that help inventory a network.

#### **Industry Challenges**

Some of the present network information and discovery industry challenges, in Thomas' opinion, include network managers needing to conduct periodic inventory of network assets. "Some of those devices do not respond to standard test methods like ping sweeps. For example, Windows systems with personal firewalls do not respond to normal ICMP scanning techniques. NetScanTools Pro's ARP scanner will show all IPv4 connected devices that are active on the local network, including computers protected by personal firewalls."

Thomas says identifying transient network devices can sometimes be a challenge. He says NWPS provides tools such as the Passive Discovery tool, which can listen for long periods on a network to find the devices that appear briefly and then disappear.

Determining the current network topology can also sometimes be a challenge. Thomas says certain aspects of a business network can be fluid and change frequently. He says, "The people maintaining a business network may not be the people who built it. Our Switch Port Mapping tool is designed to help get a view into the network by drastically reducing the time a technician spends in a wire closet tracing connections between



switches and devices." Thomas says the tool does this by examining switches and mapping the information found in them.

Thomas says current NWPS network management customers and security customers have expressed interest in fully portable software that does not require installation. "The ability to move an application between computers without having to install it is a definite need. While portable software can leave small tracks in the Registry, we work to be sure that no files are left behind on the computer. Some tools by their very nature can only gather information about the local subnet (an example is ARP), so being able to quickly move the application to another computer on a different subnet for data gathering is crucial to many of our customers."

In Thomas' opinion, improved operating system security features, especially like those found in Microsoft Vista, make it increasingly difficult to conduct legitimate network discovery and probing operations. He says this is because some portions of NetScanTools Pro use the same methodologies as hacking tools. NWPS is constantly improving its software to address the differences in OS architecture.

#### IT Admins, Take Note

So why would IT administrators, in particular, care about NWPS' technology? Thomas says it's mainly because the company's technology works on Windows platforms with a variety of protocols to obtain information about the network. He says, "The tools in NetScanTools Pro use several different protocols, including ICMP, ARP, DHCP, SNMP, TCP, and UDP, to gather information about network devices. We provide a consistent, cohesive interface to bring a number of powerful tools into a package that can be used for network analysis."

Thomas says NWPS' Switch Port Mapping Tool has few similarly priced competitors and works with as large a group of switch manufacturers and models as possible. "Similar tools provided by the manufacturers tend to be brand-specific (not for any generic SNMP managed switch) and require large installation packages. Our Switch Port Mapping Tool is an efficient 4MB installation." He says network managers, analysts, and investigators frequently have the need to bring their tools with them to remote locations. "Our new USB version of NetScan-Tools Pro addresses that need. The USB version allows the user to use NetScanTools Pro on a machine without actually installing it. This saves time and allows the user to run it where needed, when needed."

One of NWPS' closest competitors is SolarWinds (www.solarwinds.net). Thomas says SolarWinds has similar tools as NWPS, including a switch port mapping tool. He adds, "Many of their tools are separate applications contained within a toolset. We bring many of those same tools into a single application so that data can be easily shared."

## THREE QUESTIONS

## **Keeping Up With Storage Challenges**

Sans Digital Helps SMEs Meet Their Individual Requirements

by Joseph Pasquini

SANS DIGITAL, located in Santa Fe Springs, Calif., is a provider of high-capacity, multifunctional advanced storage solutions designed for use in home offices, small to medium-sized enterprises, video-editing, data backup, surveillance systems, and other related industries. With an emphasis on improving customer productivity, Sans Digital (www.Processor.com/lly) also offers storage products for RAID and barebones systems for both OEM (original equipment manufacturer) and ODM (original design manufacturer) clients.

Stanley Chan serves as product manager for Sans Digital. Having been involved in the information technology sector since the late '90s, he holds a bachelor's degree in computer science and has extensive research and experience in the storage solution arena. We recently asked Mr. Chan about his company and the role that technology plays in addressing the distinctive storage needs of SMEs seeking effective and reliable data storage systems.

#### What are the biggest IT-related issues facing today's small to midsized enterprise?

"Small and medium business markets are demanding more and more manageable storage options," Chan says. "The process of selecting, learning about, and implementing different storage technology options is very challenging. SMBs usually do not have enough resources to set up a storage network, yet there are substantial requests for more reliable storage solutions due to various government regulations. This in turn brings about a need; that is where our company comes in to help these businesses with all of their individual storage requirements."

#### What should *Processor* readers know about your company's products?

"Most of our products utilize SATA hard drives and provide RAID protection using various connections," says Chan. Sans Digital's storage solutions feature a variety of form factors, including rackmount, cube, tower, cage, and mobile rack units. "Sans Digital will surely have a total solution to meet your specific demands."

According to Chan, small offices require appropriately scaled storage solutions. "Our Mobile Silver Series is a perfect solution for this market. This series includes a small 2-bay enclosure with up to RAID 1 and up to RAID 6 on our 5-bay tower. This is a great solution for small working environments." The new Synology Series is another storage offering of interest to SMEs. "The Synology includes full-featured NAS products with various built-in connections (PC to NAS, NAS to NAS, and NAS to external HD), making them complete backup solutions."

"Our AccuRAID DAS (direct-attached storage) product line is ideal for enterprise and data center environments. This series features RAID 6 technology with SCSI/Fibre Channel/iSCSI in a 1U/2U/3U rackmount or tower form factor." Chan notes that Sans Digital's enterprise-level NAS product line, available in both Windows Storage Server 2003 and AccuNAS Linux editions, provides even greater redundancy and data protection, as well as volume snapshot and mirroring, NAS to NAS replication, iSCSI initiator, and target support.

"Our SAN Solution iSCSI is an enterprise-level iSCSI target server that offers an affordable and highly scalable IP SAN solution as an alternative to traditional DAS and/or Fibre SAN," notes Chan. "It provides storage virtualization over DAS, Fibre, [and] other iSCSI targets and presents the virtualized data storage to a network client as if it was a 'local disk' over a Gigabit Ethernet."

#### What makes your company unique?

"Sans Digital recognizes that one-size-fits-all storage solutions are unlikely to meet everyone's requests. Most companies focus on target markets such as data center only or video-editing markets, but Sans Digital can provide solutions for all data storage needs," says Chan. "As a result, we offer both off-the-shelf and customized storage solutions—ranging from single-bay, USB/FireWire/eSATA SATA storage to high-performance NAS/iSCSI/Fibre Channel SATA/SAS—that are specifically tailored to various industries."

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## **IP SAN In A Box**

The StoneFly Storage Concentrator Is Ideal For Entry-Level & Mission-Critical Environments



THE STONEFLY Integrated-HA Storage Concentrator HSC (Hybrid Storage Concentrator)-1420 product offers a simple, rapid-to-deploy IP SAN in a box. HSC products offer the ease of the Integrated Storage Concentrator product family with the modularity, redundancy, and high availability of the Modular Storage Concentrator line. With innovative Cluster-Mirror technology for full redundancy and availability, HSCs are ideal for entry-level and mission-critical deployments.

Based on the extensible StoneFusion OS, the HSC-1420 offers best-in-class flexibility and performance and supports storage capacities ranging from 3.5 to 10.5TB in each system. With the Stone-Fusion Network Storage Platform, Stone-Fly IP SANs support advanced storage services and management, including storage virtualization, active/active clustering, synchronous mirroring via StoneFly Reflection, StoneFly Snapshot, and centralized storage management.

StoneFly Storage Concentrators consolidate physical storage resources and provision those resources into logical volumes. With the StoneFly virtualization engine, the separation of physical storage from logical volumes allows SAN admin-

istrators to take a layered approach to storage management and availability.

StoneFly IP SANs offer maximum flexibility as storage needs increase. HSC systems also can be clustered with an additional HSC or MSC-i4000 Storage Concentrator. With seamless failover technology and load-balancing, Storage Concentrator Clusters make it easy to design a SAN with no single point of failure. By utilizing StoneFly Cluster-Mirror technology, a second HSC-1420 can be added to offer engine redundancy and data mirroring.

Each HSC-1420 offers an integrated storage concentrator engine, dedicated RAID intelligence, hot-swappable system components, redundant power and cooling, and support for SATA and HSS disk drives. Typical applications include D2D backup, disaster recovery, storage centralization, and other primary storage applications.



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